

SITE:	
BREAK:	1.9
OTHER:	vol. 1

**Date:** August 8, 2003

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Environmental Assessment Section  
ADEM Land Division

**Site:** Andrew Knit  
1416 Skyland Boulevard East  
Tuscaloosa, AL 35405

**EPA ID No.:** ALN0000407553  
**CERCLIS.:** 7553

NFRAP  
H.A.G.  
9-30-03

## 1. INTRODUCTION

Under authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA) and a cooperative agreement between the U.S. Environmental Protection Agency and the Alabama Department of Environmental Management (ADEM), an integrated assessment (combined PA/SI) was conducted at the Andrew Knit (AK) site located in Tuscaloosa, Tuscaloosa County, Alabama. The purpose of this integrated assessment was to collect information concerning conditions at the site sufficient to assess the threat posed to human health and the environment and to determine the need for additional investigation under CERCLA/SARA or other action. The objective of this assessment is to determine if the AK facility is a contributing source of chlorinated solvent groundwater contamination detected on a down gradient adjacent property. The scope of the investigation included a review of available file information, a comprehensive target survey, an onsite reconnaissance, and collection of environmental soil, groundwater, and surface water samples.

Directions to the AK site from ADEM (Montgomery) are as follows:

- Take Interstate 65 north to Interstate 459 south.
- Turn onto Interstate 20/59 west and continue to Tuscaloosa.
- Exit McFarland Boulevard/82 south and take a left on Highway 82 south.
- Travel to the third traffic light and make a left on Skyland Boulevard.
- At the second traffic light take a left on Andrews Street.
- The AK site was located to the right (east) where the Winn Dixie and strip mall stand today.

## 2. SITE DESCRIPTION, OPERATIONAL HISTORY, REGULATORY HISTORY AND WASTE CHARACTERISTICS

### 2.1 Location

Andrew Knit (AK; Spiller Market Centre) is located in Tuscaloosa, Tuscaloosa County, Alabama south of the Black Warrior River. The United States Geological Survey's (USGS) 7.5 Minute



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Quadrangle Map entitled Tuscaloosa, Alabama shows the location of the site to be in the northeast ¼ of the southeast ¼ of the southwest ¼ of Section 31 Township 21 South, Range 9 West (Figure 1). The latitude and longitude have been estimated to be 33° 10' 14" North Latitude and 87° 31' 04" West Longitude (Ref. 2).

"The climate of Tuscaloosa County is considered to be humid subtropical with an average annual rainfall of approximately 52 inches. The average temperature in the summer is 81° and in the winter is 47° (Hunter and Moser, 1990). Approximately 20 of the 52 inches of rain per year runs off into the streams (Knight and Davis, 1980)" (Ref. 2).

## **2.2 Site Description**

AK was a "cut and sew" factory for women's clothing. Aerial photographs for AK were located and viewed at the Tuscaloosa County Courthouse. After linking aerial photographs and topography maps together, an addition to the southeastern side of the building occurred between the years of 1981 and 1976. Areas for parking were designated on the south, west, and north sides of the building. Today the old AK site can be found at 1416 Skyland Boulevard East, Tuscaloosa, Alabama 35405. Structured on the former AK site today are several businesses. These businesses and the old AK building are located near the top of a hill in an area with drastic changes in elevation (Ref. 7 and 10).

Businesses that are located in the Spiller Market Centre where AK once stood are Winn Dixie Marketplace, Phil's Buffalo, Northwest Financial, Blockbuster Video, Mailbox Express, Etc., Salon Studios, Mattress Max, and DMK Entertainment, Inc. The total space that these businesses combined occupy is 60,036 square feet. However, these businesses are in two different buildings. Winn Dixie opened its doors on December 1, 1994, while the other businesses opened sometime later in 1994, 1995 and 1997 (Ref. 5 and 13). To the left (west) and adjacent to the AK site is McFarland Mall. Sites nearby include J & J Telephone Inc. and Harper Chambers which are located north, Alabama Power Substation, Security Storage and Memory Hill Gardens Cemetery are located to the east, and restaurants, a Wal-Mart Supercenter and various other commercial businesses are located south (Figure 7).

## **2.3 Operational History**

AK no longer exists as a factory at this site. AK operated approximately eighteen years. Before AK began operation at this site it was located where the old Gaylord's Department Store (GDS) once stood on Skyland Boulevard West. At the GDS site, the knitting operation was designated a pilot plant. The garments were sewn for practice and given to charities. During the latter part of 1966, the operation was moved to the current AK site which is being assessed on eastern Skyland Boulevard. At this location AK manufactured clothing for retail sale (Ref. 5 and Figure 7).

Tax records were reviewed at the Tuscaloosa County Courthouse in order to identify historical property ownership. Research revealed that the property being assessed had been owned by three different owners. During the time in which AK operated, the property owner was the Tuscaloosa Industrial Development Board (TIDB). According to the tax maps AK leased the

property from the (TIDB) between the years of 1967 to 1985. From 1986 to 1989 Harper Chambers owned the property and used the old AK building for a hardware store. In 1990 Harper Chambers sold the property to Spiller Investments, Inc. Spiller used the former AK building for a furniture store until it was demolished for the construction of the Spiller Market Centre. Spiller Investments currently owns the subject property (Ref. 5 and 7).

Jonathan Logan was the name brand of clothing manufactured at the facility and was the parent company of AK. Butte Knit and Act Three were factories and divisions of Jonathan Logan. These factories spun and wove the yarn for the material to be put on large rolls. The rolls of material were then shipped to other divisions like AK (Tuscaloosa, AL), Debra Knit (Northport, AL) and Lynn Knit (Brent, AL) for the clothes to be sewn (Ref. 5 and 9).

The procedures and operations that took place at AK were as follows:

Rolls of pre dyed material were shipped into AK. (material was mostly cotton and polyester)  
The material was rolled out on large tables.

Patterns were placed over the material and pieces of material were cut.

About 50-75 patterns were cut at a time from the amount of material rolled onto the cutting tables.

Each piece of material was labeled with a number.

The pieces then went through inspection.

Pieces passing inspection were sent down the line to be sewn together. (sleeves, collars, cuffs etc.)

These pieces were then sent further down the assembly line where all pieces of the garment were sewn together.

Next, the garments were under pressed. Under press machines are steam irons that press certain parts of the garment. (collar, cuffs, sleeves etc.)

After the under press, garments would be inspected.

Then the garments were either dry cleaned or spot treated to ensure cleanliness.

Garments were then bulk pressed. (entire article of clothing was pressed)

Again, garments were checked for flaws.

The garments were tagged, bagged, and shipped to Butte Knit located in Spartanburg, S.C.

The Jonathan Logan name brand of clothing was then distributed to department stores.

(Ref. 5)

## **2.4 Regulatory History**

No files for AK, the present Winn Dixie or businesses located in the Spiller Marker Centre were identified in ADEM files.

A Geotechnical Report for the Winn Dixie Site Spiller Market Centre was completed by TTL, Inc. on April 9, 1993. The report was submitted to The Trotman Company, Inc. in Montgomery, Alabama (Ref. 14). The Trotman Company is the property manger for Spiller Investments. ADEM requested and received the report from The Trotman Company. Also, The Trotman Company forwarded ADEM a Field Density Report conducted during the months of June, July,

and August of 1994 at Spiller Market Centre. The Field Density Report was completed by TTL, Inc. (Ref. 7 and 15).

## **2.5 Waste Characteristics/Source History**

According to the Groundwater Report produced by BHATE Environmental, for the Northington Cleaners (NC) site, groundwater sample results indicate chlorinated solvent contamination up-gradient. NC is a participant in the State Voluntary Cleanup program (ALRERA). Groundwater samples were not taken on the AK site, but were taken up-gradient from NC near the AK site. The concentrations up-gradient from NC were suspected to have come from AK. Located in the Groundwater Report by BHATE Environmental are the constituents detected during the sampling events for NC. The constituents discovered in the analytical results include: tetrachloroethene (PCE), cis 1,2-dichloroethene (DCE), trichloroethene (TCE), chloroform, bromodichloromethane, 1,1 dichloroethene, trans-1,2 dichloroethene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5- trimethylbenzene, n,p-xylene and o-xylene (Ref. 12).

On September 10, 2002 a meeting was held at ADEM with the owner of NC, Mr. Ward McFarland, and his consultant, BHATE Environmental, to discuss the cleanup plan for NC. The topic of discussion was the extent of plume cleanup to be addressed by NC. Due to concentrations of tetrachloroethene (PCE) found at 55 and 70 foot depths up-gradient from NC, Mr. McFarland and BHATE Environmental investigated potential sites that may have contributed to the groundwater contaminated plume. After Mr. McFarland and BHATE Environmental researched the area, it was concluded that AK located up-gradient may have contributed to the contaminated plume (Ref. 12). AK had a dry cleaning and spot treatment operation in the rear portion of the building and it is thought that process could have contributed a percentage of the chlorinated solvents found in the subsurface plume (Ref. 5).

## **3. SAMPLING FOR THE INTEGRATED ASSESSMENT**

The Integrated Assessment sampling for this site was conducted in two phases by ADEM personnel. Phase 1 involved surface water sampling and Phase 2 involved groundwater sampling. Samples were analyzed for volatile organic compounds (VOCs). Due to industry and agriculture located along the Black Warrior River (BWR) and this particular sampling point being most down-gradient from the site before the convergence of the BWR, one surface water sample on the BWR was analyzed for VOCs in addition to total metals, SVOCs, and herbicides (Ref. 3). No surface water sediment samples were collected during this assessment.

## **4. GROUNDWATER PATHWAY**

### **4.1 Hydrogeologic Setting**

“The groundwater aquifers of Tuscaloosa County include the Eutaw aquifer, the Gordo aquifer, the Coker aquifer, the Pottsville aquifer, and the Watercourse aquifer (Moore, 1992). The source of recharge for these aquifers is rainfall. The majority of the rainfall runs off during and directly after a rain event or is returned to the atmosphere by evaporation and transpiration. A small amount infiltrates to serve as aquifer recharge (DeJarnette and Crownover, 1987)” (Ref. 2).

“The site is located in the recharge area of the Watercourse aquifer (Moore, 1992). The Watercourse aquifer is not a major aquifer in Tuscaloosa County, but significant quantities of water can be acquired in wells located in the flood plains of major streams. In the vicinity of the site the Watercourse aquifer overlies and recharges the Coker aquifer. The Coker aquifer is composed of very fine to course grained sand, sandy clay, and gravel, and ranges in thickness from 0 to 1,000 feet. The Coker aquifer is a major aquifer in Tuscaloosa County and will yield 1 to 2 million gallons per day to an individual well (DeJarnette and Crownover, 1987)” (Ref. 2 and Figure 4). The site is located in an area of minimal flooding (Ref. 6).

“No active public water supply wells or springs are located within four miles of the site (ADEM GPS Data)”. Due to the urban nature of the area near the site, domestic wells are not expected in the vicinity of the site (Ref. 2).

## **4.2 Groundwater Targets**

Drinking water wells are not located within a four mile radius of the site. The use of private drinking water wells are possible within the four miles, but not likely due to the urbanized/commercialized nature of the area (Ref. 2). Since chlorinated solvents have already reached groundwater in the area the potential for these hazardous substances to leach and/or migrate to greater depths and distances is greatly increased (Ref. 12).

## **4.3 SAMPLING AND ANALYTICAL RESULTS FOR GROUNDWATER**

### **4.4 Groundwater Sampling**

On February 11 and 12, 2003, ADEM personnel sampled groundwater at the AK site. Due to the close proximity of down-gradient monitoring wells located on an adjacent site, only two (2) locations were selected for groundwater sampling. One sample (1) location (GW-AK-B1) was placed in an area believed to be directly beneath the east side of the building and location (GW-AK-B2) two (2) was due south on the same side of the former AK building (Ref. 7). The sample locations should indicate whether or not groundwater contamination exists on the site (Figure 6).

### **4.5 Analytical Results for Groundwater**

The trip blank attained from the laboratory before the sampling trip indicated 7.34 ppb of methylene chloride. This constituent is a common lab contaminant and was not identified in the groundwater samples collected during this assessment. Acetone was identified in sample GW-AK-02 at 14,472 ppb (Ref. 3). Acetone is not a constituent used in dry cleaning operations. The source of this contamination is unknown at this time. There is a beauty salon in the strip mall and acetone is a constituent commonly used. According to SCDM values, the non-cancerous risk benchmark for acetone is 3.6 ppm (3,600 ppb). The concentration levels found in GW-AK-02 exceed the SCDM benchmark value (Ref. 3 and 4).

#### 4.6 Conclusion for Groundwater

Because the area is not located in a karst formation and there are no public drinking supply wells in the area, there is no suspected impact to drinking water sources from the AK site.

### 5. SURFACE WATER PATHWAY

#### 5.1 Geomorphologic Setting

“Geologic units exposed in Tuscaloosa County range from Cambrian to Holocene in age and are sedimentary in origin. The county contains areas of the three following physiographic provinces: the Valley and Ridge, the Cumberland Plateau, and the East Gulf Coastal Plain. Geologic units exposed in the Valley and Ridge province of Tuscaloosa County range from Cambrian to Pennsylvanian in age and include, from oldest to youngest, the Conasauga Formation, Copper Ridge Dolomite, Chickamauga Limestone, Red Mountain Formation, Frog Mountain Sandstone, Chattanooga Shale, Fort Payne Chert, Tuscumbia Limestone, Floyd Shale, Parkwood Formation, and the Pottsville Formation (lower part). The geologic unit exposed in the Cumberland Plateau province of Tuscaloosa County is the Pottsville Formation (upper part), which is Pennsylvanian in age. Geologic units exposed in the East Gulf Coastal Plain province of Tuscaloosa County range from Late Cretaceous to Holocene in age and include, from oldest to youngest, the Coker, Gordo, Eutaw Formation, and Alluvial and terrace deposits (Hunter and Moser, 1990)” (Ref. 2 and Figure 3).

“The geologic unit that outcrops in the vicinity of the site is Alluvial and low terrace deposits (Szabo, et al., 1988). The Alluvial deposits are present along the flood plain of the Black Warrior River and consist of clay, silt, sand, and gravel. The Alluvial deposits range in thickness from 30 to 60 feet and are underlain by the Coker Formation (DeJarnette and Crownover, 1987)”. The site is not located in an area that is underlain by limestone or other types of rocks that are susceptible to karst development (Ref. 2 and Figure 3).

#### 5.2 Surface Water Targets

“The site is situated in south central Tuscaloosa County in what is considered to be the Alluvial Plain district of the East Gulf Coastal Plain physiographic section. The Alluvial Plain district consists of broad flat flood plains along the Tombigbee, Black Warrior, and Sipsey Rivers (DeJarnette and Crownover, 1987)”. The surface elevation at the site is approximately 290 feet MSL (Ref. 2).

“Surface water drainage from the site appears to be to the south into Cypress Creek. Cypress Creek flows 11.3 miles to the southwest and flows into the Black Warrior River. The Black Warrior River comprises the remainder of the 15-mile surface water pathway from the site (Figure 2). The sections of Cypress Creek and the BWR along the 15-mile surface water pathway from the site are listed with a use classification of fish and wildlife. The Black Warrior River has a seven day two year low flow rate of 298 cfs and a seven day ten year low flow rate of 96 cfs. Low flow data was not available for Cypress Creek; however, this is a small to minimal stream and the low flow rates are estimated to be less than 10 cfs (Hayes, 1978)”.

Approximately 4.16 miles of wetlands area located along the surface water pathway associated with the AK site (Ref. 10). No known surface water intakes for public drinking water supplies are located along the 15-mile surface water pathway from the site (Ref. 2).

Of the eleven Federally Endangered or Threatened Species identified for this area, nine species may be found along the BWR (Ref. 8). Table 1 shows the aquatic wildlife that may inhabit the surface water pathway associated with the AK site.

<b>Table 1</b>		
<b>Aquatic, Federally Endangered or Threatened Species</b>		
<b>Common Name</b>	<b>Listing</b>	<b>Distribution in Alabama</b>
Flattened musk turtle	Threatened	Tuscaloosa County
Orange-nacre mucket mussel	Threatened	Tuscaloosa County
Alabama moccasinshell mussel	Threatened	Tuscaloosa County
Southern clubshell mussel	Endangered	Tuscaloosa County
Dark pigtoe mussel	Endangered	Tuscaloosa County
Ovate clubshell mussel	Endangered	Tuscaloosa County
Inflated heelsplitter mussel	Threatened	Tuscaloosa County
Fine-lined pocketbook mussel	Threatened	Tuscaloosa County
Black Warrior waterdog	Candidate Species	Tuscaloosa County

(Ref.8)

### 5.3 SAMPLING AND ANALYTICAL RESULTS FOR SURFACE WATER

#### 5.4 Surface Water Sampling

Surface water samples were collected along the fifteen mile surface water pathway. Cypress Creek and the Black Warrior River (BWR) comprise the fifteen mile downstream surface water pathway (Figure 2). On January 22 and 23, 2003, ADEM personnel collected surface water samples along the surface water pathway. The first three sample locations were located on the BWR. A total of three (3) cross-sections, divided into quarters were sampled along the river. Samples were collected along a cross-section trending from the left quarter (A), mid-channel (B), and the right quarter (C) facing upstream. These samples were analyzed for VOCs. Because the depth of the BWR at the locations sampled were greater than ten (10) feet, vertical composite samples were collected at each location using a peristaltic pump. All nine samples were analyzed by ADEM's Central Laboratory for volatile organic compounds (VOCs) (Ref. 3 and 5 and Figure 5).

The remaining surface water samples were collected along Cypress Creek. Sample location SW-AK-04-CR was close to where Cypress Creek empties into the BWR. Due to this sample location being the most down-gradient point from the site before the convergence of the BWR, surface water was collected for the analysis of VOCs, SVOCs, total metals, and herbicides. Other samples taken in Cypress Creek were SW-AK-05-CR thru SW-AK-07-CR and the samples were analyzed for VOCs. All samples were analyzed by the ADEM Central Laboratory located in Montgomery, Alabama (Ref. 3 and 5 and Figure 5).

## **5.5 Analytical Results for Surface Water**

The results for the surface water samples collected on the BWR and in Cypress Creek indicated all hazardous constituents analyzed for were less than the method detection limit (<MDL) (Ref. 3).

## **5.6 Conclusion for Surface Water**

The BWR and Cypress Creek comprise the surface water pathway associated with the AK site (Figure 2). The human food chain and sensitive environments are possible targets located along the surface water pathway associated with the AK site. There is no known public drinking water surface water intake located along the 15-mile surface water pathway. Both bodies of water are listed with a use classification of fish and wildlife. Hazardous substances were not detected in the surface water pathway associated with the AK site. Because no hazardous waste constituents were indicated in the surface waters associated with the site, there is no evidence that the AK site is impacting human health or the environment through the surface water pathway.

# **6. SOIL EXPOSURE AND AIR PATHWAY**

## **6.1 Physical Conditions**

“The Soil Conservation Service (SCS) classifies soils at the site as Urban Land. The soils in this classification are made up of areas covered by commercial, industrial, and high-density residential facilities. These areas have been altered to a nearly level slope and have been changed by cutting, filling, and grading to the extent that the original surface soils are no longer recognizable (Johnson, 1981)” (Ref. 2).

“The closest soil unit to the site that is fully described by the SCS is the Bama sandy loam, 2 to 6 percent slopes. These soils are most likely similar to the original soils found at the site. These soils are described by the SCS as deep well-drained soils on coastal plain uplands. The surface layer typically is a brown fine sandy loam that is 5 inches thick, and subsoil that is a red to yellowish red sandy clay loam to loam that is 72 inches thick. The permeability of these soils is moderate, and the surface runoff is medium (Johnson, 1981)” (Ref. 2).

## **6.2 Soil and Air Targets**

There are no known schools, residents, or daycare facilities within 200 feet of the area. In accordance with the 2000 Alabama Census records for the City of Tuscaloosa, the average household size is 2.22 persons (Ref. 11). In Table 2, the total population within the target area has been broken down into sub-populations that live within each specified distance radius from the site.

<b>Table 2</b>	<b>Estimated Population</b>
<b>Distance From Site</b>	<b>2000 Population</b>
0.00-0.25	268
0.25-0.50	900
0.50-1.0	3,794
1.0-2.0	14,308
2.0-3.0	19,886
3.0-4.0	24,431
<b>Total Population</b>	<b>63,587</b>

(Ref. 10)

There are approximately 268 acres of wetlands located between the three and four mile distance rings for the AK site (Ref. 10). The AK site is not expected to be a critical habitat for the terrestrial federally designated endangered and candidate species, but Table 3 lists the terrestrial species that may utilize the land and surface waters located within the specified target areas (Ref. 8).

<b>Table 3</b>	<b>Terrestrial, Federally Endangered or Threatened Species</b>	
<b>Common Name</b>	<b>Listing</b>	<b>Distribution in Alabama</b>
Red-cockaded woodpecker	Endangered	Tuscaloosa County
White fringeless orchid	Candidate Species	Tuscaloosa County

(Ref.8)

### 6.3 SOIL SAMPLING AND AIR MONITORING

#### 6.4 Soil Sampling

Continuous soil sampling was conducted in association with groundwater boring B-1 in order to characterize onsite subsurface soils and to identify the location of the shallowest water bearing zone. No field observations were made that would require the collection of soil samples for laboratory analysis.

#### 6.5 Air Monitoring

Air monitoring was determined not to be necessary at the site in relation to ambient air or soil screening.

#### 6.6 Conclusion for Soil Sampling and Air Monitoring

Because the site is mostly covered with asphalt, concrete and buildings, the direct contact exposure risk is low. During the site visit and groundwater sampling event no odors were detected. No VOCs were detected in the groundwater samples collected from the AK site.

## 7. SUMMARY AND CONCLUSIONS

The former Andrew Knit (AK) site appears to have operated as a "cut and sew" factory making garments that were either dry cleaned or spot treated to ensure cleanliness before shipment. There is no evidence to indicate that contamination in groundwater or surface water is attributed to AK. No observed releases were detected in exposure pathways nor were any actual contaminated targets identified; therefore, the site is unlikely to pose a threat to human health or the environment. ADEM recommends that this site be placed in the category of "No Further Remedial Action Planned" (NFRAP) at the Federal level. No additional State action is planned in association with the AK site.

## **8. PHOTODOCUMENTATION LOG**

**AK: Andrew Knit**

**Dates: October 9, 2002**

**January 22-23, 2003**

**February 11-12, 2003**

**AK-1:** Alabama Power Substation located to the right (west) of the old AK site.

**AK-2:** Shown is Memory Hill Gardens Cemetery located to the right (west) of AK and the Alabama Power Substation. The tan building to the left is mini storage units.

**AK-3:** This business is J & J Telephone Inc. and is located behind (north) of the AK site. This building is located directly behind (north) of Harper Chambers Lumber Company. The street shown is Andrews Street.

**AK-4:** Harper Chambers Lumber Company is located directly behind (north) Winn Dixie. From 1986 to 1989 Harper Chambers owned the AK site.

**AK-5:** This is a view of the back side of Winn Dixie with the Alabama Power Substation in the background. The road in the foreground is Andrews Street.

**AK-6:** This is another view of the back side of Winn Dixie. Shown in the picture facing south is Andrews Street which dead ends into Skyland Boulevard. To the right (west) through the tree line and below the steep elevation is the parking lot for McFarald Mall. To the left (east) is the parking lot for Harper Chambers.

**AK-7:** This picture shows a view of Winn Dixie from the front. The parking area shown in this picture was also used for parking when AK was in business. The AK factory sat to the right (west) of Winn Dixie facing Andrews Street. Winn Dixie faces Skyland Boulevard.

**AK-8:** This picture shows a small strip mall in the same shopping center as Winn Dixie. This strip mall is southwest of Winn Dixie. The strip mall is located in the same general area and faces Andrews Street just as the AK site did at one time. After viewing late aerial photographs, it was concluded that the old AK building was much larger than the area where the strip mall is located.

**AK-9:** This sign is located in front of the strip mall and Winn Dixie. All of the businesses in the shopping center are printed on the sign. The shopping center is called Spiller Market Centre.

**AK-10:** ADEM personnel operating the GeoProbe during the advancement of soil boring number one (GW-AK-B1). Continuous soil samples were collected from this location to an approximate depth of eighty-three (83') feet below ground surface (bgs.). Soil samples were collected in order to characterize subsurface soils and to identify the shallowest water bearing zone. Groundwater was encountered at an approximate depth of seventy-six feet (76') bgs and the boring was advanced to approximately eighty-three feet (83') bgs in order to collect a groundwater sample for volatile organic compounds (VOC).

**AK-11:** ADEM personnel operating the GeoProbe during the advancement of soil boring number one (GW-AK-B1).

**AK-12:** The location of (GW-AK-B1) behind the strip mall located in the Spiller Market Centre. The actual borehole was covered with the 5-gallon bucket until it can be abandoned properly. In the distance ADEM personnel are advancing groundwater boring number two (GW-AK-B2).

**AK-13:** ADEM personnel during the advancement of (GW-AK-B2) that is located southeast of the strip mall. To the south and behind the working crew is Skyland Boulevard. No soil samples were collected during the advancement of this boring due to the approximate depth of groundwater being identified on the previous boring. This boring was advanced to an approximate depth of eighty-three feet (83') bgs and groundwater was collected from this interval for VOC analysis.

**AK-14:** ADEM personnel advancing (GWAK-B2) that is located southeast of the strip mall.

**AK-15:** ADEM personnel during the advancement of (GW-AK-B2) that is located southeast of the strip mall.

**AK-16:** This photograph is taken from the southeast corner of the strip mall. The road is Skyland Boulevard and in the background are restaurants, a Walmart Supercenter, a bank and many other commercial businesses.

**AK-17:** This photograph is taken from the location of (GW-AK-B2). Pictured is Skyland Boulevard while Pier Imports and the Walmart Supercenter in the background are south of the former AK site.

**AK-18** Groundwater being brought up in tubing using the check ball method on (GW-AK-B2).

**AK-19:** ADEM personnel installing tubing into the peristaltic pump for surface water sampling.

**AK-20:** An amber sample bottle used for collecting surface water for the analysis of VOCs. The labeling denotes specific information: surface water (SW), sample one located right of the main channel facing upstream (01C), Andrew Knit Site (AK), Black Warrior River (BWR), date and time the sample was collected.

**AK-21:** ADEM personnel using the peristaltic pump to pump surface water from greater depths and then turning it off to attain a sample for VOCs from the bottom of the tubing.

**AK-22:** The cap is being put on carefully so that air does not get trapped in the sample.

**AK-23:** This photograph shows the Black Warrior River (BWR) and the width of its channel at sample location.

**AK-24:** This photograph is taken from the BWR. Pictured is Cypress Creek emptying into the BWR. Sample location (SW-04-AK-CR) was located upstream from this point.

**AK-25:** ADEM personnel using the peristaltic pump to sample surface water below in Cypress Creek for VOCs at surface water sample location (SW-05-AK-CR).

**AK-26:** An old wrecked Bronco II and other junk cars and parts had been pushed off the bridge into Cypress Creek downstream from surface water sample location (SW-05-AK-CR).

**AK-27:** This photograph shows Cypress Creek flowing south through a piece of property with a high fenced deer enclosure.

**AK-28:** ADEM personnel collecting sample five (SW-05-AK-CR) on Cypress Creek upstream of the bridge.

**AK-29:** This photograph is showing the size of Cypress Creek at sample location (SW-05-AK-CR) facing north.

**AK-30:** Pictured is Cypress Creek flowing under a small bridge built for golf carts at the Mimosa Park Country Club. Personnel shown are using the peristaltic pump to collect a surface water sample (SW-06-AK-CR) for the analysis of VOCs and using the GPS unit to map the location of the sample.

**AK-31:** This is Cypress Creek flowing under the small bridge at the golf course. This is the location where sample six (SW-06-AK-CR) was collected.

**AK-32:** Pictured above is Cypress Creek that is flowing north and is located west of Sam's Wholesale. This portion of the stream appears to have been diverted from the original stream channel in the construction of the shopping center based on topographic map information. This portion of the creek is upstream from (SW-07-AK-CR).

**AK-33:** This picture shows Cypress Creek flowing downstream in a northwest direction. At this location the creek is directly behind Days Inn and upstream from (SW-07-AK-CR).

**AK-34:** ADEM personnel collecting Cypress Creek surface water sample number seven (SW-07-AK-CR) and also collecting the data points on the GPS for the sample's location. This section of the creek is location behind the Quality Inn.

## 9. REFERENCES

1. Trimble Navigation Limited Survey & Mapping Division, GPS Pathfinder TSC1 datalogger v5.12 and Pro XR/XRS receiver, and Pathfinder Office Version 2.70.
2. Gibson, Joseph L., Alabama Department of Environmental Management Water Division, Hydrogeology Report; Andrew Knit (AK) Tuscaloosa, Tuscaloosa County, Alabama". October 10, 2002.
3. Alabama Department of Environmental Management, Central Laboratory Analytical Reports for Surface Water and Groundwater Sampling.
4. Superfund Chemical Data Matrix-User Version. Developed by the Office of Emergency and Remedial Response, U.S. Environmental Protection Agency. Windows Version 1.0, September 1997.
5. Cross, Anne F., Alabama Department of Environmental Management, Trip Reports and Phone Logs. Trips: October 1, 2002, October 9, 2002, January 22-23, 2003 and February 11-12, 2003. Phone Logs: October 3, 2002, October 11, 2002 and October 15, 2002.
6. Federal Emergency Management Agency, Flood Insurance Rate Map, Community Number 010203, Panel Number 0045 A, City of Tuscaloosa, Tuscaloosa County Alabama, Effective Date: February 1, 1979.
7. Tuscaloosa County Courthouse, Tuscaloosa, Alabama. Office of Tax Assessor. Parcel Numbers and Aerial Photographs from 1976 and 1996 of site and surrounding properties.
8. U.S. Fish and Wildlife Service – Daphne Ecological Services Field Office "ALABAMA'S FEDERALLY LISTED SPECIES (BY COUNTY), Updated – June 11, 2002".
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## 8. PHOTODOCUMENTATION LOG

**AK: Andrew Knit**

**Dates: October 9, 2002**

**January 22-23, 2003**

**February 11-12, 2003**

**AK-1:** Alabama Power Substation located to the right (west) of the old AK site.

**AK-2:** Shown is Memory Hill Gardens Cemetery located to the right (west) of AK and the Alabama Power Substation. The tan building to the left is mini storage units.

**AK-3:** This business is J & J Telephone Inc. and is located behind (north) of the AK site. This building is located directly behind (north) of Harper Chambers Lumber Company. The street shown is Andrews Street.

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## 9. REFERENCES

1. Trimble Navigation Limited Survey & Mapping Division, GPS Pathfinder TSC1 datalogger v5.12 and Pro XR/XRS receiver, and Pathfinder Office Version 2.70.
2. Gibson, Joseph L., Alabama Department of Environmental Management Water Division, Hydrogeology Report; Andrew Knit (AK) Tuscaloosa, Tuscaloosa County, Alabama". October 10, 2002.
3. Alabama Department of Environmental Management, Central Laboratory Analytical Reports for Surface Water and Groundwater Sampling.
4. Superfund Chemical Data Matrix-User Version. Developed by the Office of Emergency and Remedial Response, U.S. Environmental Protection Agency. Windows Version 1.0, September 1997.
5. Cross, Anne F., Alabama Department of Environmental Management, Trip Reports and Phone Logs. Trips: October 1, 2002, October 9, 2002, January 22-23, 2003 and February 11-12, 2003. Phone Logs: October 3, 2002, October 11, 2002 and October 15, 2002.
6. Federal Emergency Management Agency, Flood Insurance Rate Map, Community Number 010203, Panel Number 0045 A, City of Tuscaloosa, Tuscaloosa County Alabama, Effective Date: February 1, 1979.
7. Tuscaloosa County Courthouse, Tuscaloosa, Alabama. Office of Tax Assessor. Parcel Numbers and Aerial Photographs from 1976 and 1996 of site and surrounding properties.
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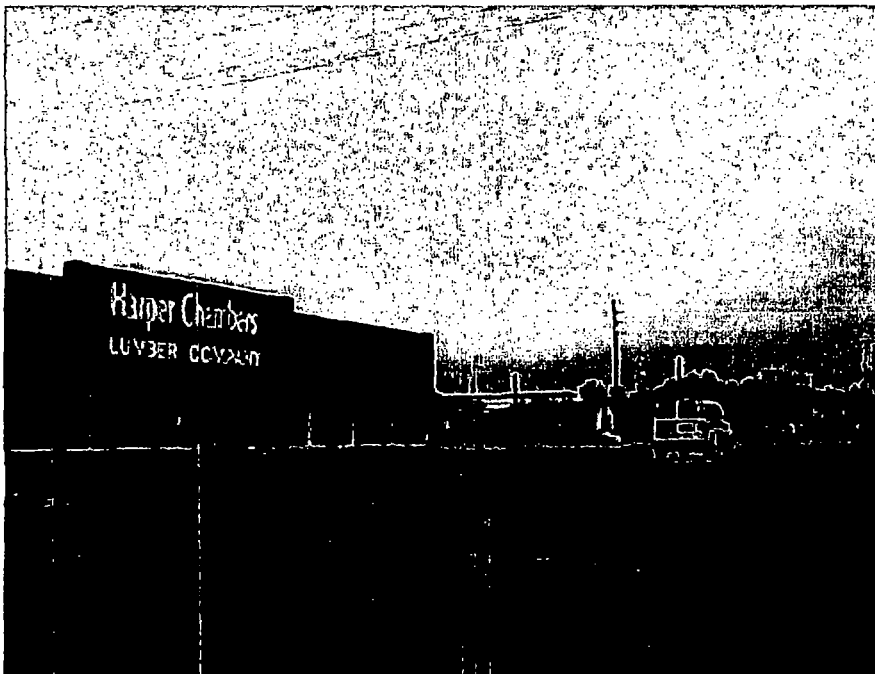
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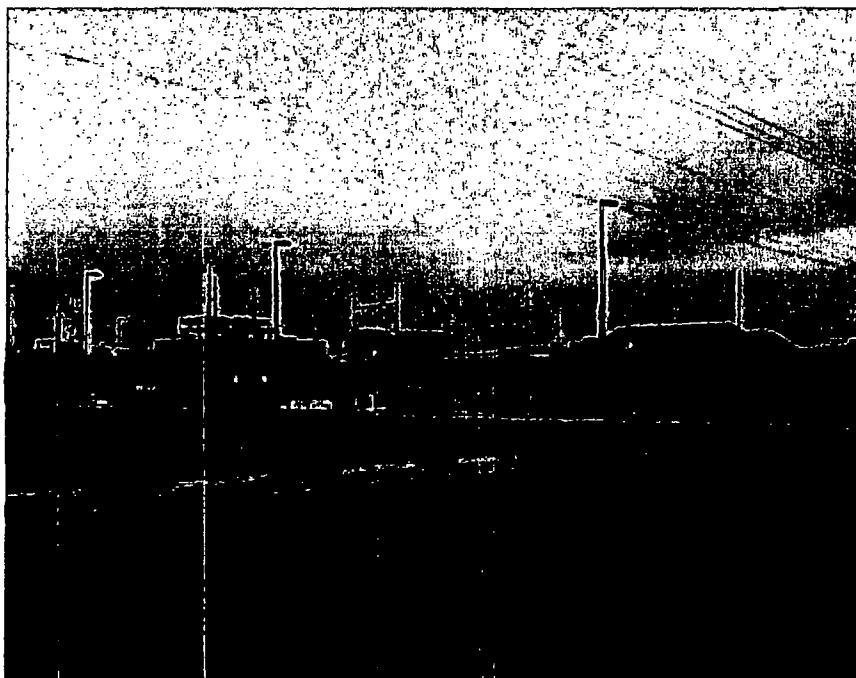
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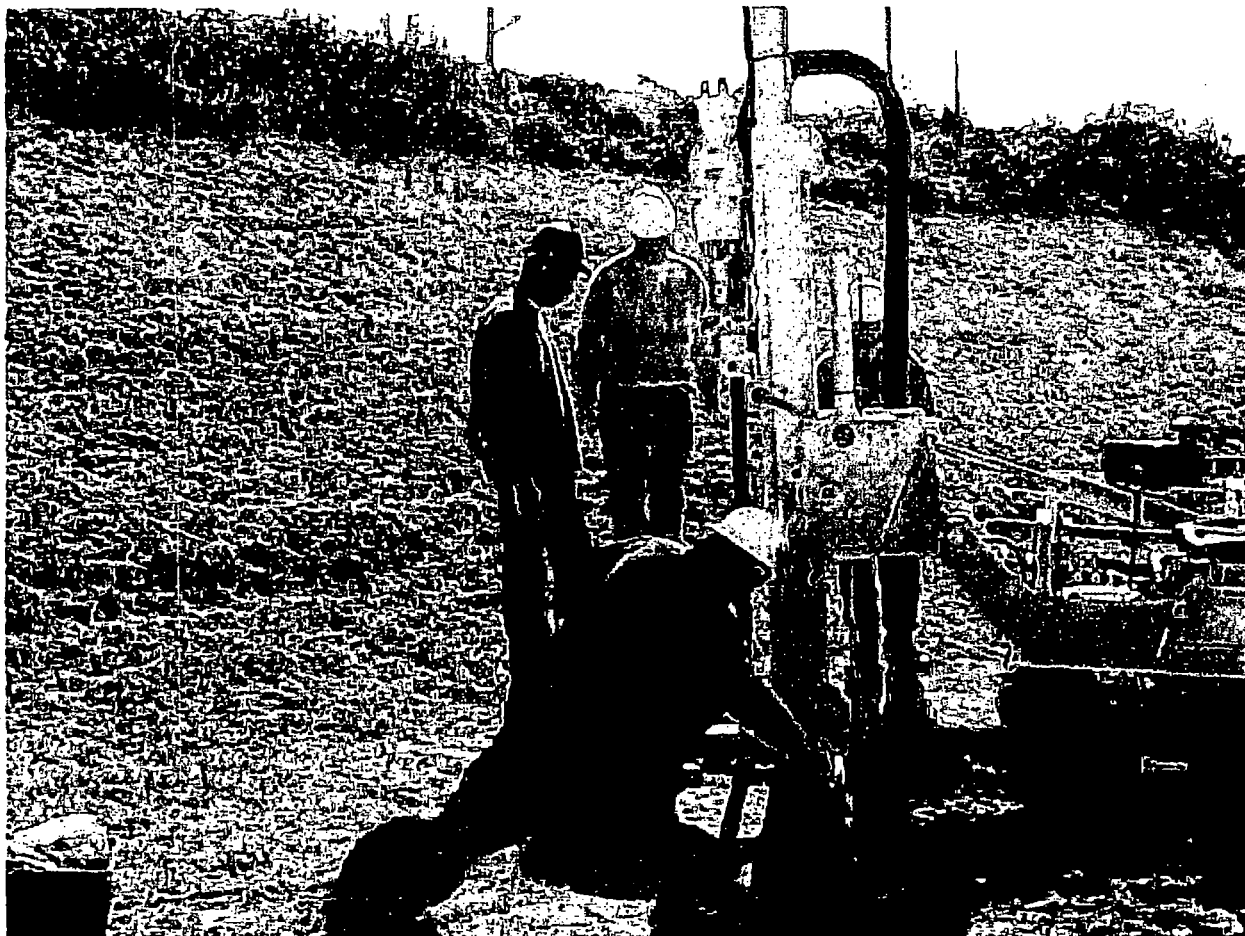
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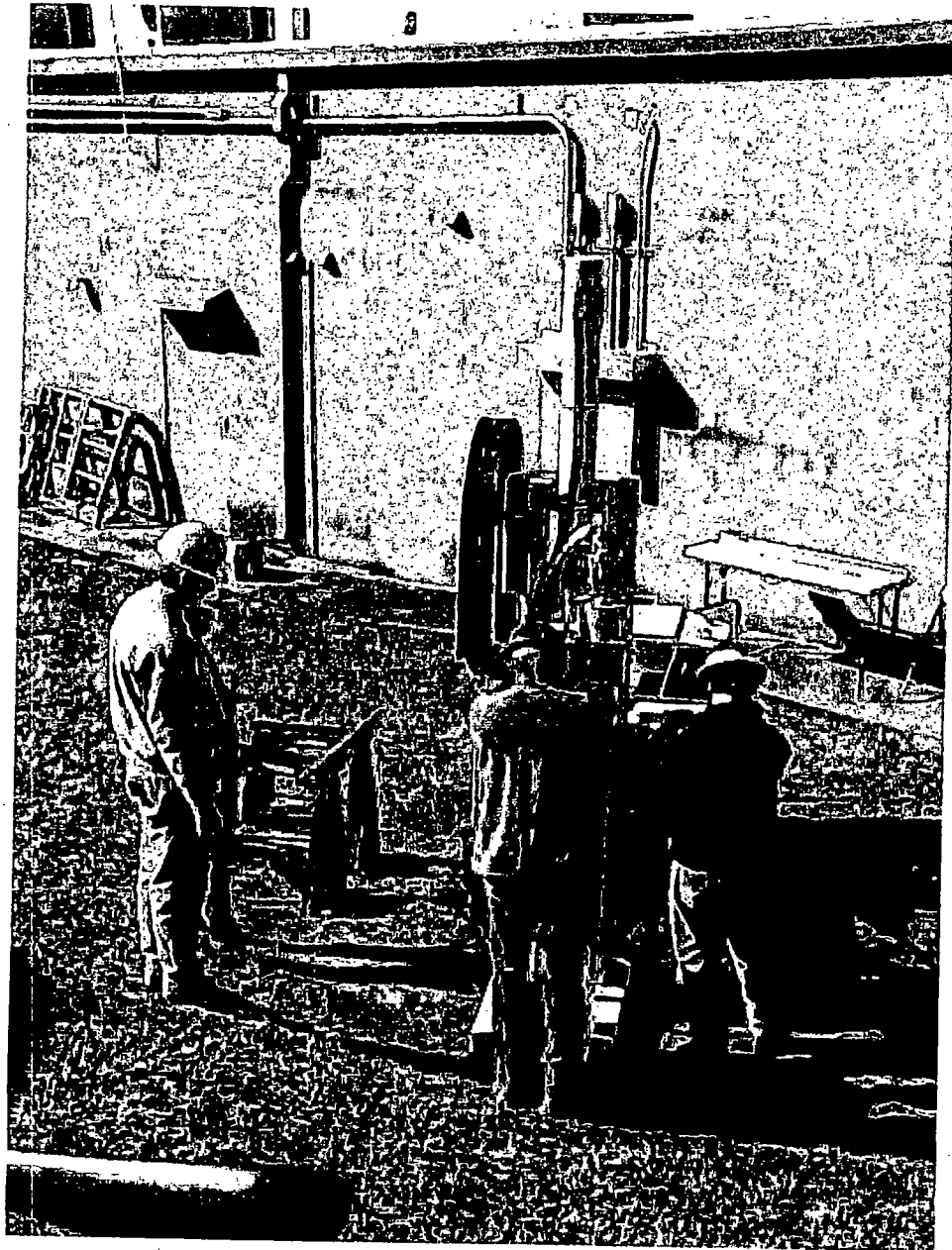


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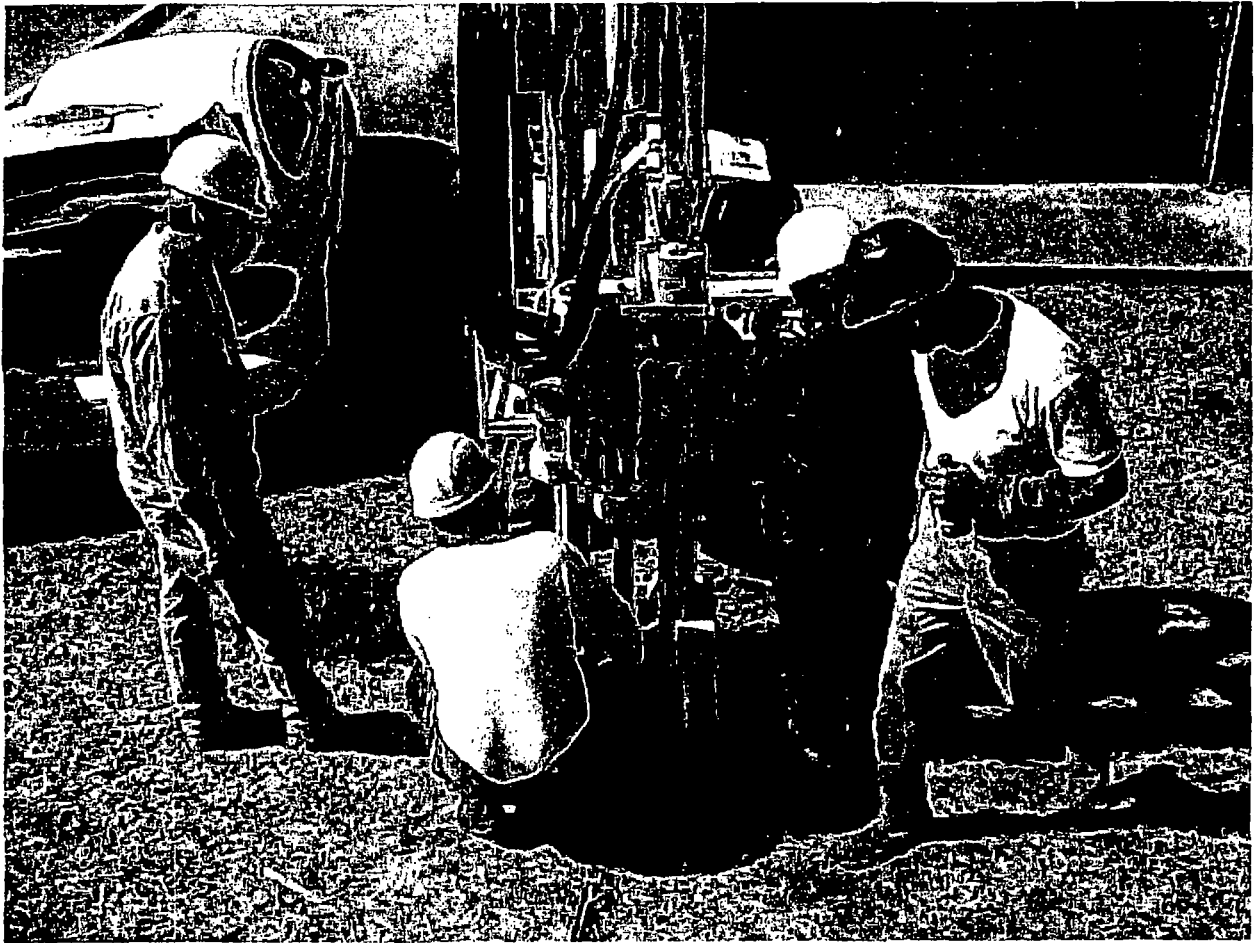
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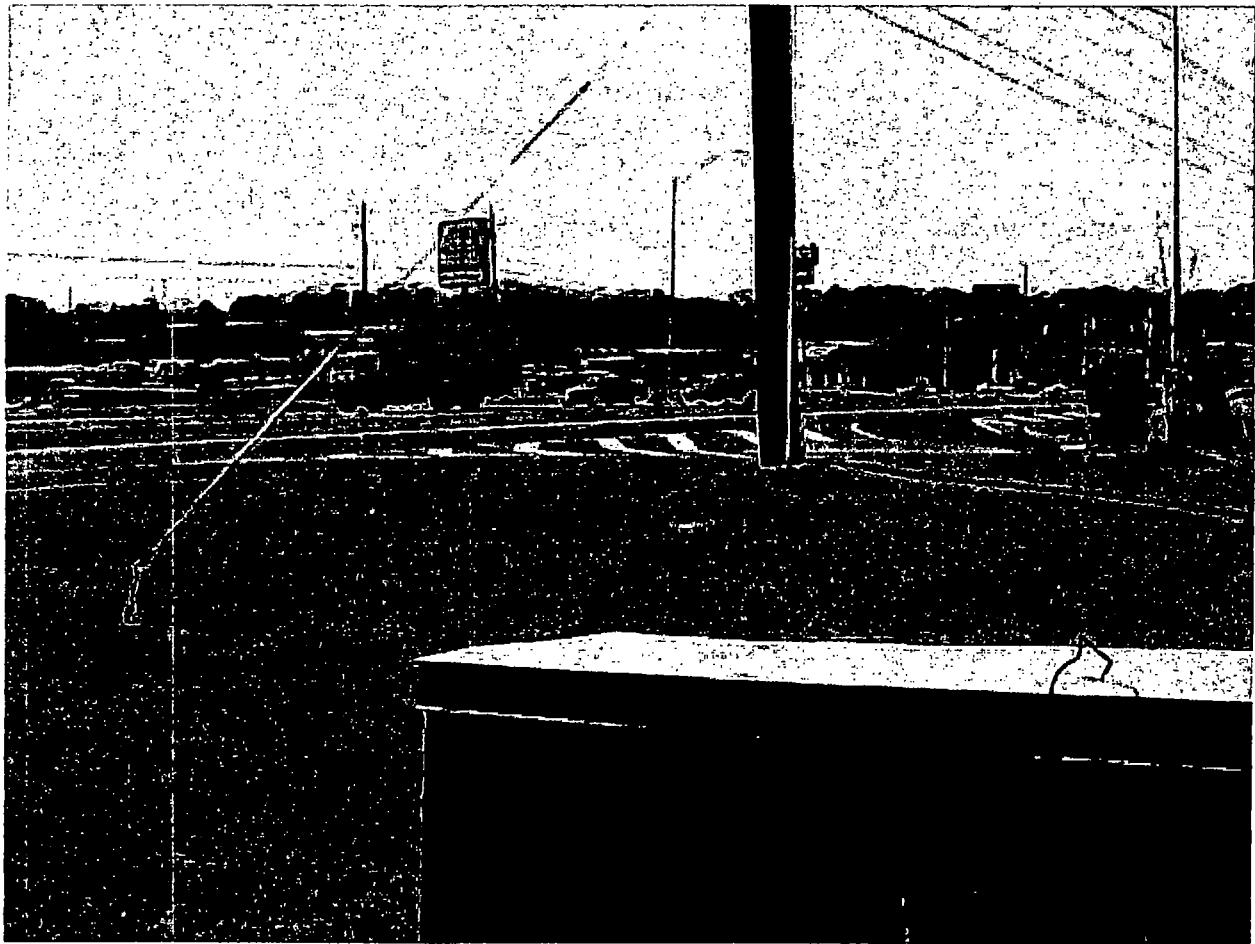
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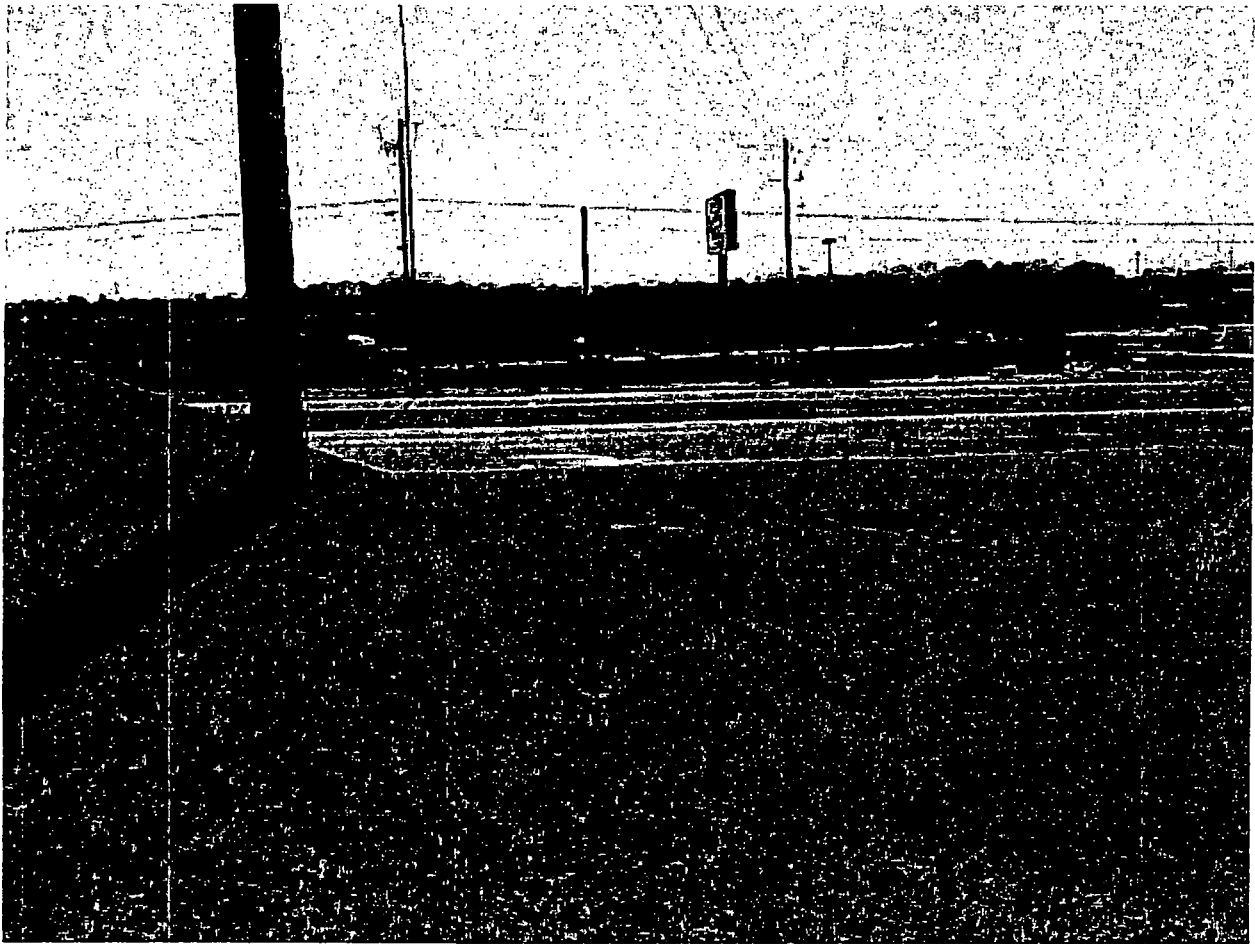
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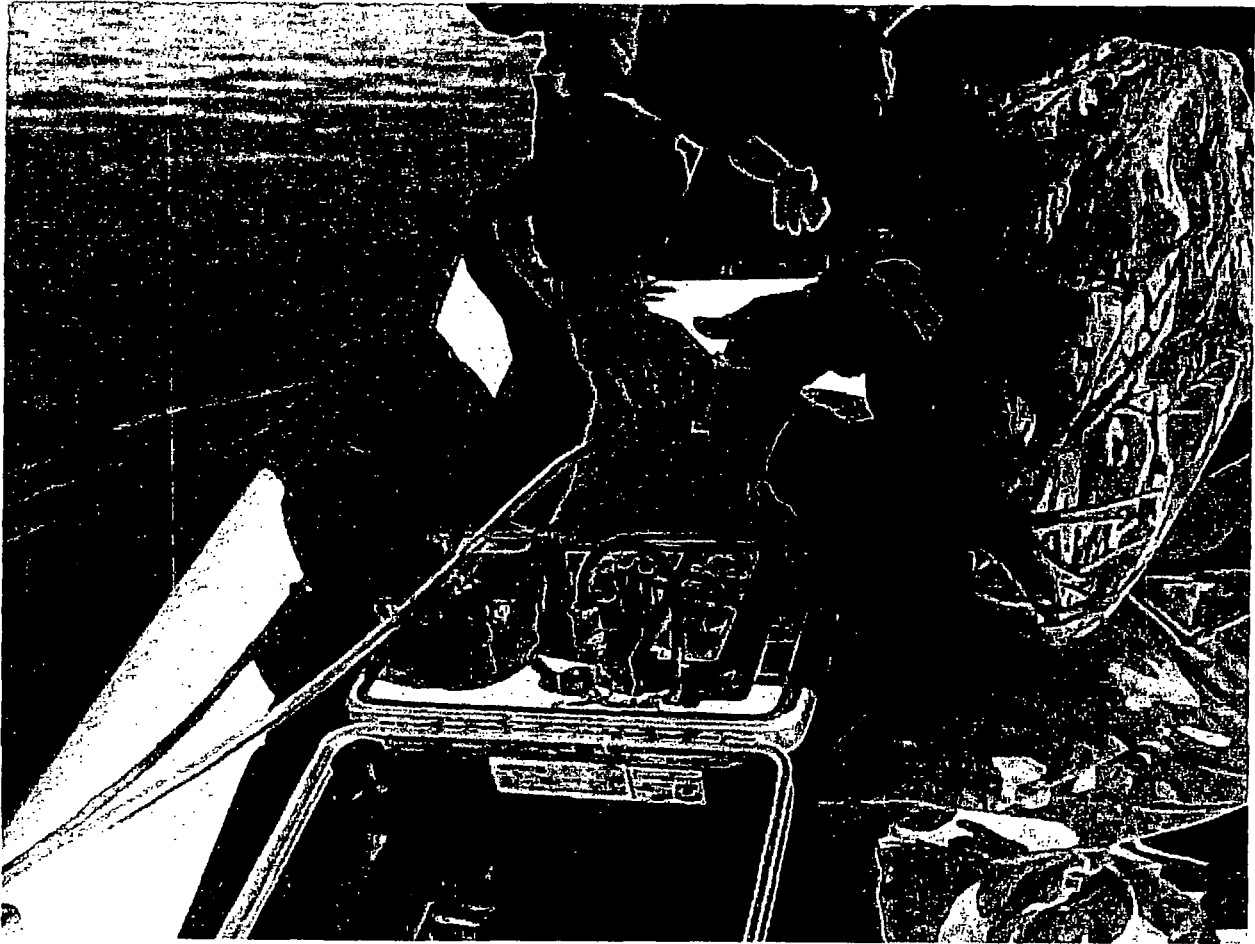
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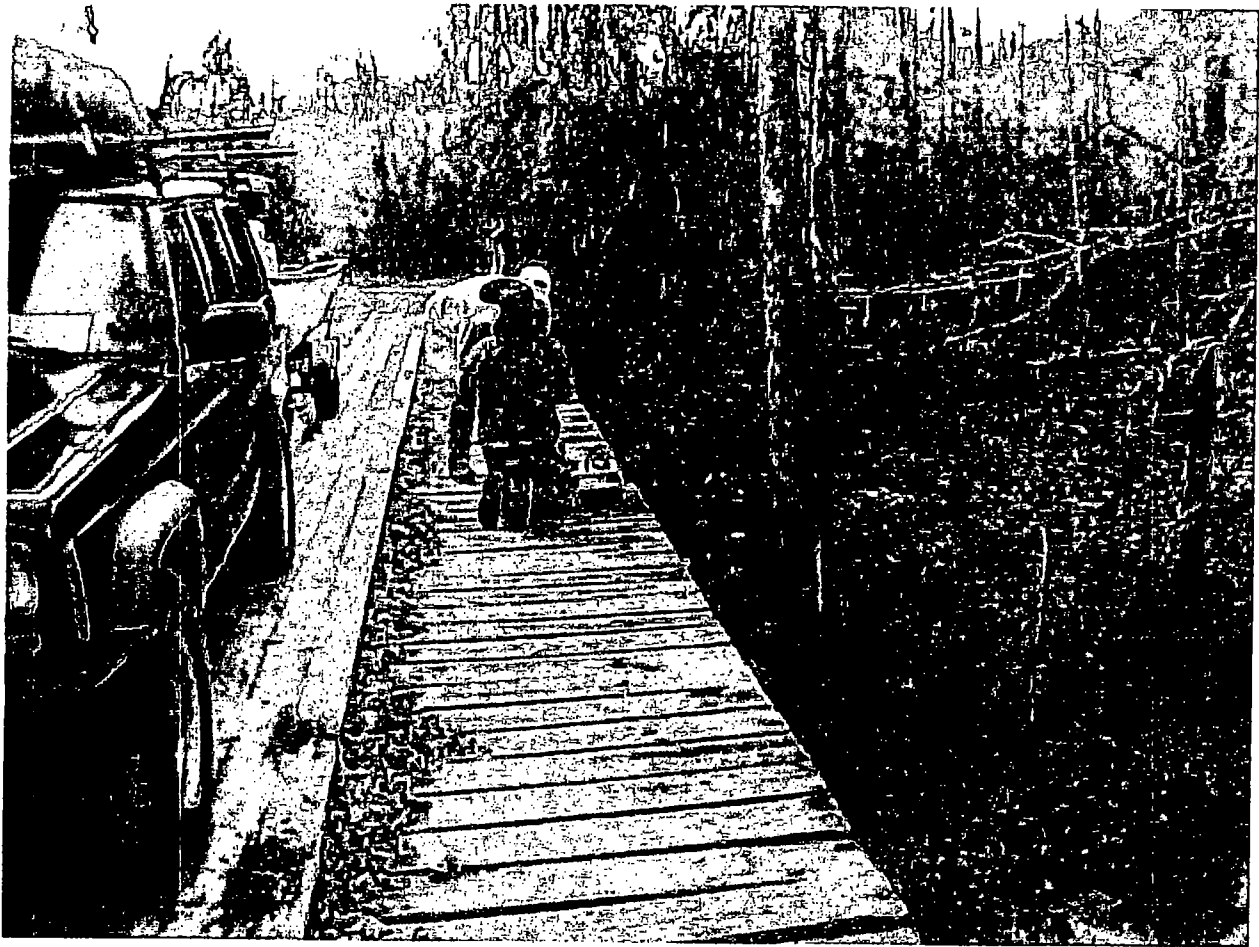
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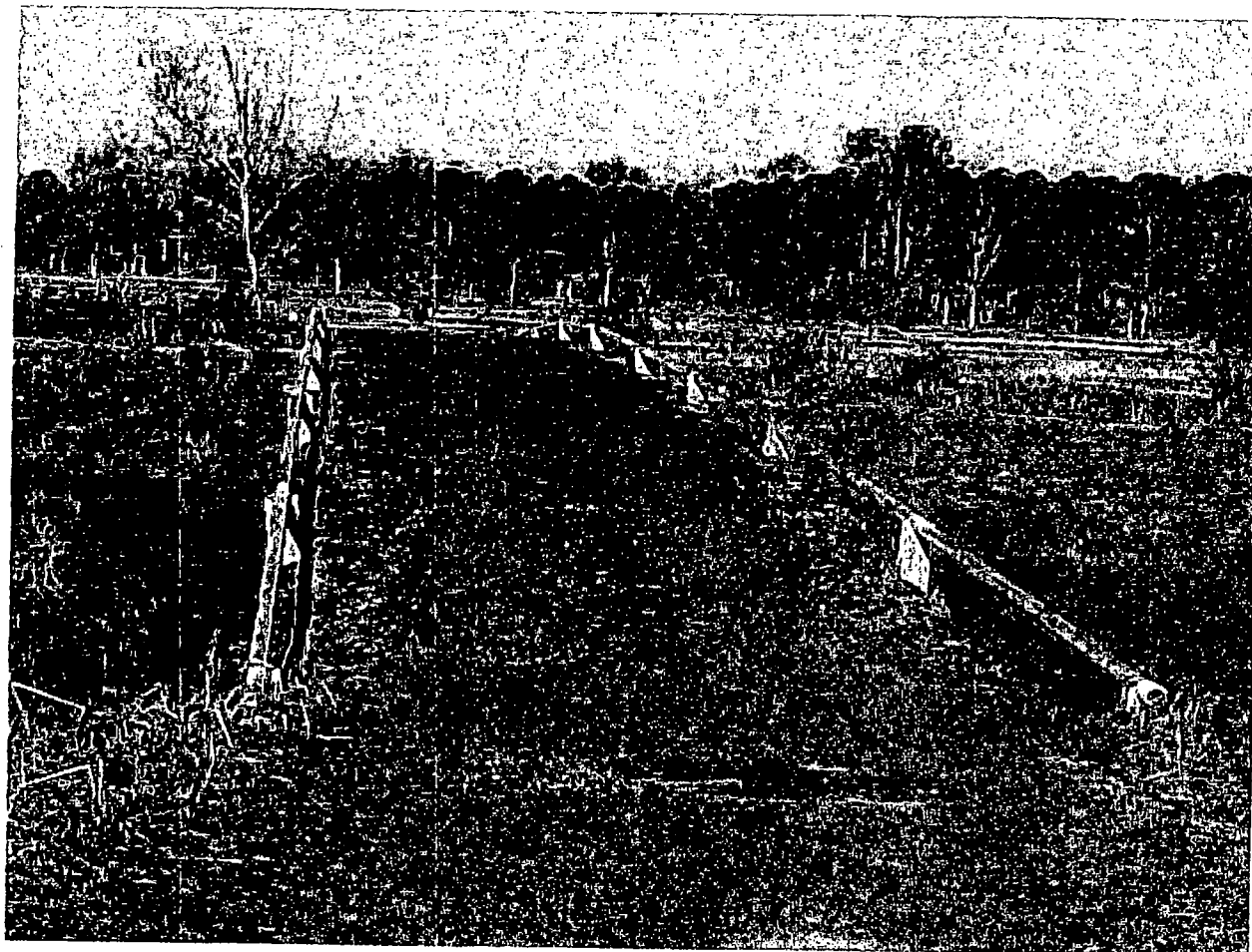
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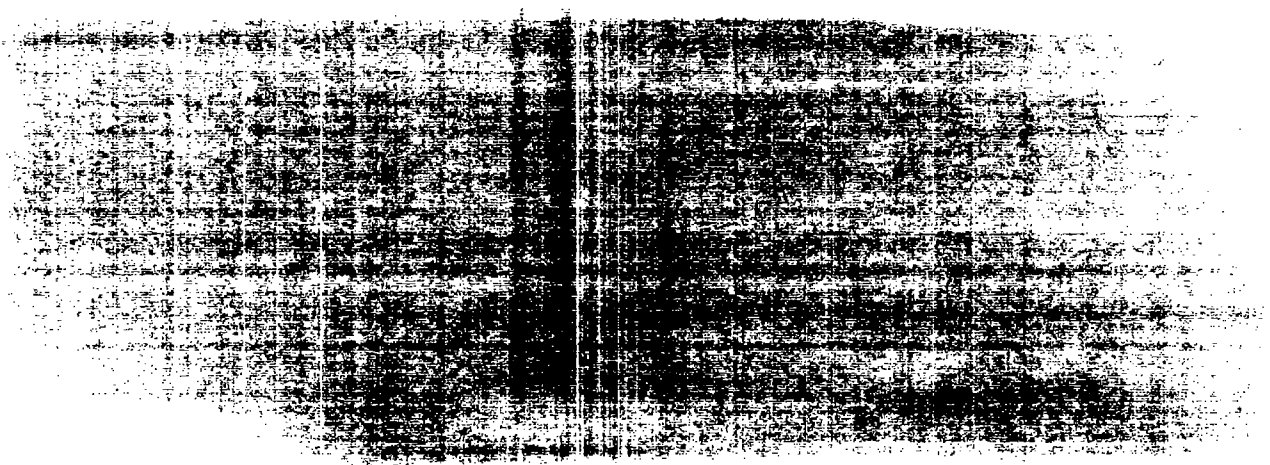
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REFERENCE 1

# GPS Pathfinder Office

## *Getting Started Guide*

**Part Number 34231-27-ENG**

**Version 2.70**

**Revision A**

**July 2000**

*Trimble Navigation Limited  
Mapping & GIS Systems  
645 North Mary Avenue  
Post Office Box 3642  
Sunnyvale, CA 94086-3642  
U.S.A.*

*Phone: +1-408-481-8940  
1-800-545-7762  
Fax: +1-408-481-7744  
[www.trimble.com](http://www.trimble.com)*

# TSC1 Asset Surveyor

## *Operation Manual*

**Part Number 34182-05-ENG**

**Version 5.00**

**October 1999**

**Revision A**

**Trimble Navigation Limited  
Mapping & GIS Systems  
645 North Mary Avenue  
P.O. Box 3642  
Sunnyvale, CA 94088-3642  
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**1-800-827-8000 in North America  
+1-408-481-8000 International  
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# Pro XR/XRS

## *Receiver Manual*

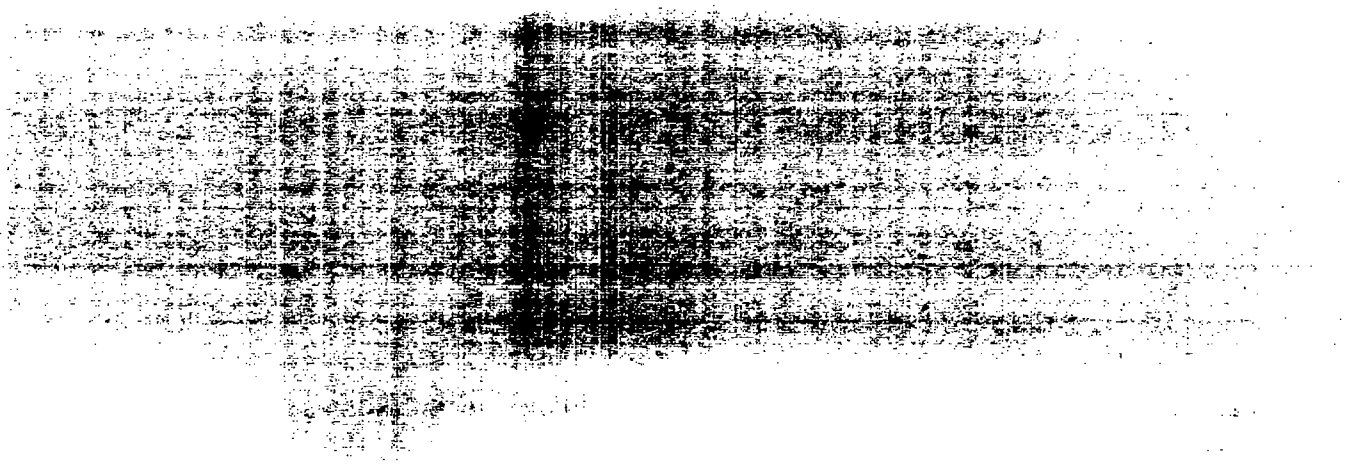
**Part Number 31172-20-ENG**

**Revision A**

**May 1998**

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*1-800-827-8000 in North America  
+1-408-481-8000 International  
Fax: +1-408-481-7744  
[www.trimble.com](http://www.trimble.com)*



REFERENCE 2



## ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

POST OFFICE BOX 301463 36130-1463 ♦ 1400 COLISEUM BLVD. 36110-2059

MONTGOMERY, ALABAMA

WWW.ADEM.STATE.AL.US

(334) 271-7700

JAMES W. WARR  
DIRECTOR

DON SIEGELMAN  
GOVERNOR

October 10, 2002

OCT 2002

RECEIVED  
AND DISTRIBUTED

### MEMORANDUM

Facsimiles: (334)  
Administration: 271-7950  
General Counsel: 394-4332  
Air: 279-3044  
Land: 279-3050  
Water: 279-3051  
Groundwater: 270-5631  
Field Operations: 272-8131  
Laboratory: 277-6718  
Mining: 394-4326  
Education/Outreach: 394-4383

**TO:** Stephen A. Cobb, Chief *AC*  
Hazardous Waste Branch  
Land Division

**FROM:** Joseph L. Gibson, Hydrogeologist *J. L. G*  
Groundwater Branch  
Water Division

**RE:** Hydrogeology Report  
Andrew Knit  
Tuscaloosa, Tuscaloosa County, Alabama

The following groundwater report was prepared through a search of literature and information available to the Groundwater Branch. The author has not conducted a site reconnaissance and the findings in this report have not been field verified.

### LOCATION

The Andrew Knit site is located in southeastern Tuscaloosa, Tuscaloosa County, Alabama. The United States Geological Survey's (USGS) 7.5 Minute Quadrangle Map entitled Tuscaloosa, Alabama shows the location of the site to be in the northeast  $\frac{1}{4}$  of the southeast  $\frac{1}{4}$  of the southwest  $\frac{1}{4}$  of Section 31 Township 21 South, Range 9 West. The latitude and longitude have been estimated to be 33° 10' 14" North Latitude and 87° 31' 04" West Longitude.

### TOPOGRAPHY AND SURFACE WATER

The Site is situated in south central Tuscaloosa County in what is considered to be the Alluvial Plain district of the East Gulf Coastal Plain physiographic section. The Alluvial Plain district consists of broad flat flood plains along the Tombigbee, Black Warrior, and Sipsey Rivers (DeJarnette and Crownover, 1987). The surface elevation at the site is approximately 290 feet MSL.

### REFERENCE 2



Surface water drainage from the site appears to be to the south into Cypress Creek. Cypress Creek flows 11.3 miles to the southwest and flows into the Black Warrior River. The Black Warrior River comprises the remainder of the 15-mile surface water pathway from the site. The sections of Cypress Creek and the Black Warrior River along the 15-mile surface water pathway from the site are listed with a use classification of fish and wildlife. The Black Warrior River has a seven day two year low flow rate of 298 cfs and a seven day ten year low flow rate of 96 cfs. Low flow data was not available for Cypress Creek; however, this is a small to minimal stream and the low flow rates are estimated to be less than 10 cfs (Hayes, 1978). No known surface water intakes for public drinking water supplies are located along the 15-mile surface water pathway from the site.

## **SOILS**

The Soil Conservation Service (SCS) classifies soils at the site as Urban Land. The soils in this classification are made up of areas covered by commercial, industrial, and high-density residential facilities. These areas have been altered to a nearly level slope and have been changed by cutting, filling, and grading to the extent that the original surface soils are no longer recognizable (Johnson, 1981).

The closest soil unit to the site that is fully described by the SCS is the Bama sandy loam, 2 to 6 percent slopes. These soils are most likely similar to the original soils found at the site. These soils are described by the SCS as deep well-drained soils on coastal plain uplands. The surface layer typically is a brown fine sandy loam that is 5 inches thick, and a subsoil that is a red to yellowish red sandy clay loam to loam that is 72 inches thick. The permeability of these soils is moderate, and the surface runoff is medium (Johnson, 1981).

## **GEOLOGY**

Geologic units exposed in Tuscaloosa County range from Cambrian to Holocene in age and are sedimentary in origin. The county contains areas of the three following physiographic provinces: the Valley and Ridge, the Cumberland Plateau, and the East Gulf Coastal Plain. Geologic units exposed in the Valley and Ridge province of Tuscaloosa County range from Cambrian to Pennsylvanian in age and include, from oldest to youngest, the Conasauga Formation, Copper Ridge Dolomite, Chickamauga Limestone, Red Mountain Formation, Frog Mountain Sandstone, Chattanooga Shale, Fort Payne Chert, Tuscumbia Limestone, Floyd Shale, Parkwood Formation, and the Pottsville Formation (lower part). The geologic unit exposed in the Cumberland Plateau province of Tuscaloosa County is the Pottsville Formation (upper part), which is Pennsylvanian in age. Geologic units exposed in the East Gulf Coastal Plain province of Tuscaloosa County range from Late Cretaceous to Holocene in age and include, from oldest to youngest, the Coker, Gordo, Eutaw Formation, and Alluvial and terrace deposits (Hunter and Moser, 1990).

The geologic unit that outcrops in the vicinity of the site is Alluvial and low terrace deposits (Szabo, et al., 1988). The Alluvial deposits are present along the flood plain of the Black Warrior River and consist of clay, silt, sand, and gravel. The Alluvial deposits range in thickness from 30 to 60 feet and are underlain by the Coker Formation (DeJarnette and Crownover, 1987). The site is not located in an area that is underlain by limestone or other types of rocks that are susceptible to karst development.

## **HYDROGEOLOGY**

The groundwater aquifers of Tuscaloosa County include the Eutaw aquifer, the Gordo aquifer, the Coker aquifer, the Pottsville aquifer, and the Watercourse aquifer (Moore, 1992). The source of recharge for these aquifers is rainfall. The majority of the rainfall runs off during and directly after a rain event or is returned to the atmosphere by evaporation and transpiration. A small amount infiltrates to serve as aquifer recharge (DeJarnette and Crownover, 1987).

The site is located in the recharge area of the Watercourse aquifer (Moore, 1992). The Watercourse aquifer is not a major aquifer in Tuscaloosa County, but significant quantities of water can be acquired in wells located in the flood plains of major streams. In the vicinity of the site the Watercourse aquifer overlies and recharges the Coker aquifer. The Coker aquifer is composed of very fine to course grained sand, sandy clay, and gravel, and ranges in thickness from 0 to 1,000 feet. The Coker aquifer is a major aquifer in Tuscaloosa County and will yield 1 to 2 million gallons per day to an individual well (DeJarnette and Crownover, 1987).

No active public water supply wells or springs are located within four miles of the site (ADEM GPS Data). Due to the urban nature of the area near the site domestic wells are not expected in the vicinity of the site.

## **CLIMATE**

The climate of Tuscaloosa County is considered to be humid subtropical with an average annual rainfall of approximately 52 inches. The average temperature in the summer is 81° and in the winter is 47° (Hunter and Moser, 1990). Approximately 20 of the 52 inches of rain per year runs off into the streams (Knight and Davis, 1980)

cc: Anne Cross, Environmental Assessment Section

## SELECTED REFERENCES

DeJarnette, Sydney S., and Crownover, J. E., 1987, Geohydrology and Susceptibility of Major Aquifers to Surface Contamination in Alabama; Area 6, United States Geological Survey, Water Resources Investigation Report 87-4113.

Johnson, Kenneth W., 1981, Soil Survey of Tuscaloosa County, Alabama, United States Department of Agriculture, Soil Conservation Service.

Hayes, Eugene C., 1978, 7-Day Low Flows and Flow Duration of Alabama Streams Through 1973, Geological Survey of Alabama, Bulletin 113.

Hunter, Jonathan A., and Moser, P. H., 1990, Ground-Water Availability in Tuscaloosa County, Alabama, Geological Survey of Alabama, Special Map 219.

Moore, James D., 1992, Aquifers in Alabama, Geological Survey of Alabama, Special Map 231.

Knight, Alfred L., and Davis, M. E., 1980, Surface Water Availability, Tuscaloosa County, Alabama, Geological Survey of Alabama, Map 139.

Szabo, M. W., Osborne, W. e., and Copeland, C. W. Jr., 1988, Geologic Map of Alabama, Geological Survey of Alabama, Special Map 220 Northwest Sheet.

## GROUNDWATER ROUTE WORKSHEET REQUIREMENTS

### Route Characteristics

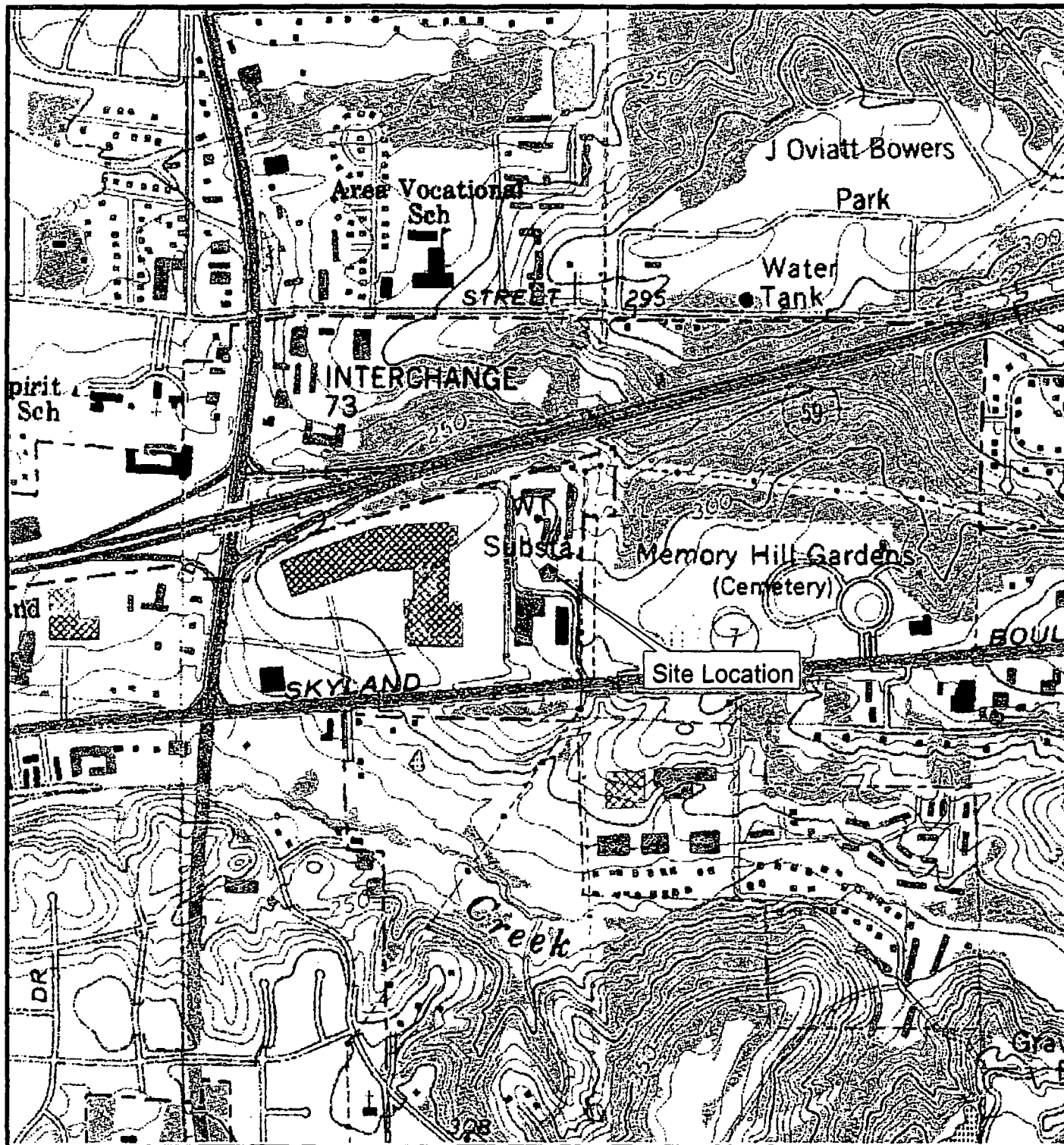
<u>Aquifer of concern</u>	Watercourse
<u>Gross Precipitation</u>	52 inches
<u>Net Precipitation</u>	6 inches (from HRS)
<u>Depth to Aquifer</u>	≈ 90 feet
<u>Slope</u>	2 to 6 percent
<u>Permeability of Unsaturated Zone</u>	$4.2 \times 10^{-3}$ To $4.2 \times 10^{-4}$ cm/sec.
<u>Is the Site Susceptible to Karst</u>	No

### TARGETS

Groundwater use — There are no water supply wells located within four miles of the site. Private water supply wells are possible within a 4-mile radius of the site.

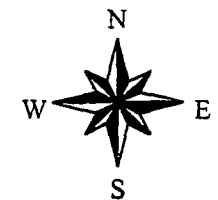
Distance to nearest well — None within four miles.

# Andrew Knit Site Tuscaloosa County Tuscaloosa, Alabama






- Site Location
- Public Wells
- Surface Water Intakes

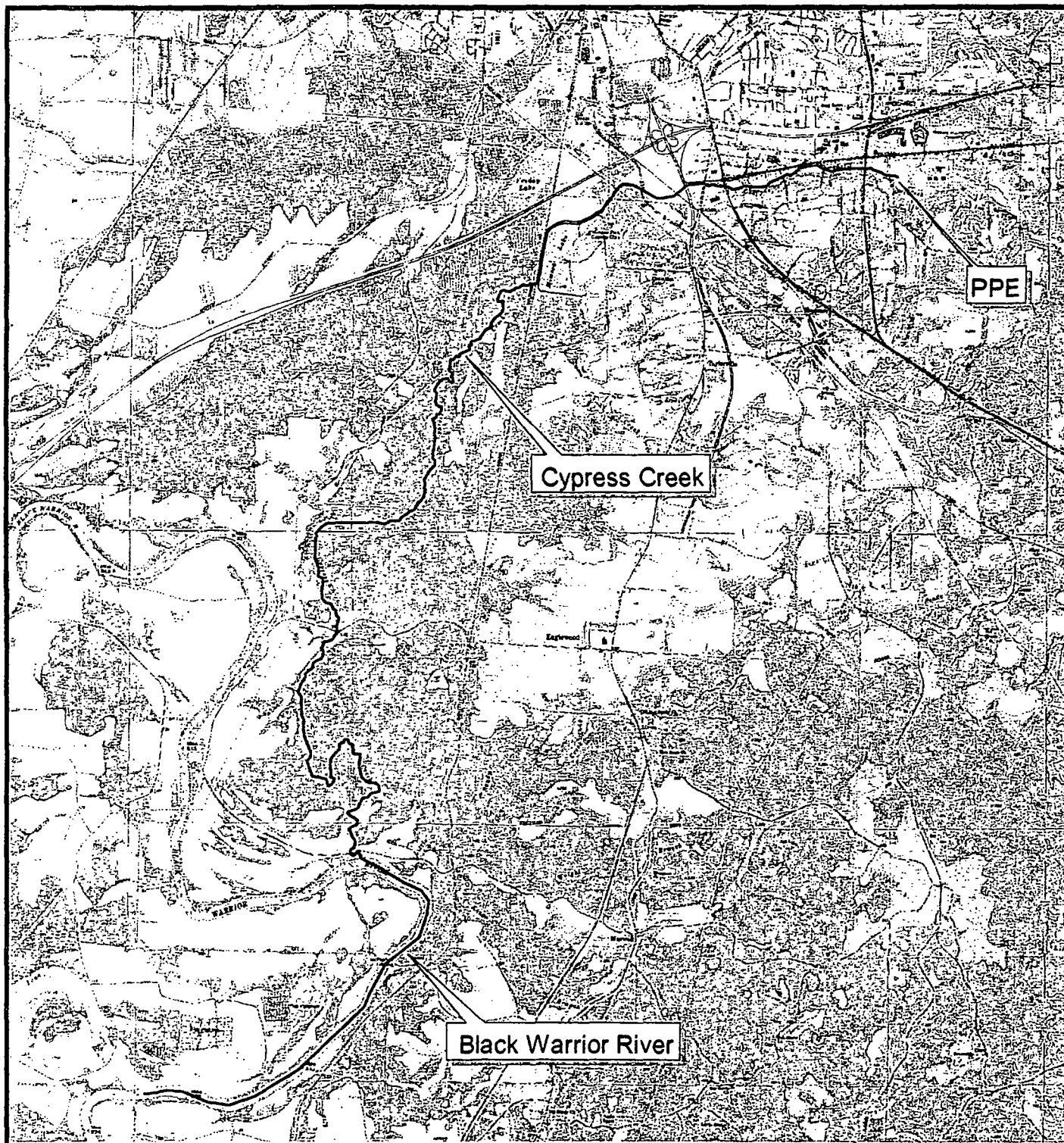
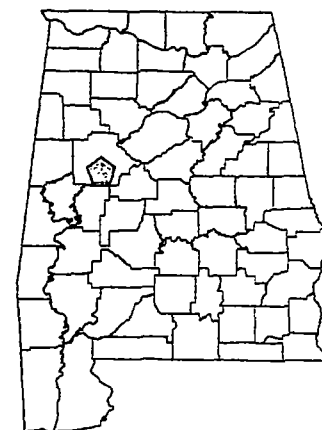
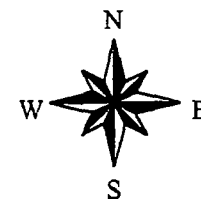

400 0 400 800 Feet














Surface Water Pathway  
Andrew Knit Site  
Tuscaloosa County  
Tuscaloosa, Alabama

-  Site Location
-  Surface Water Intakes
-  Surface Water Pathway


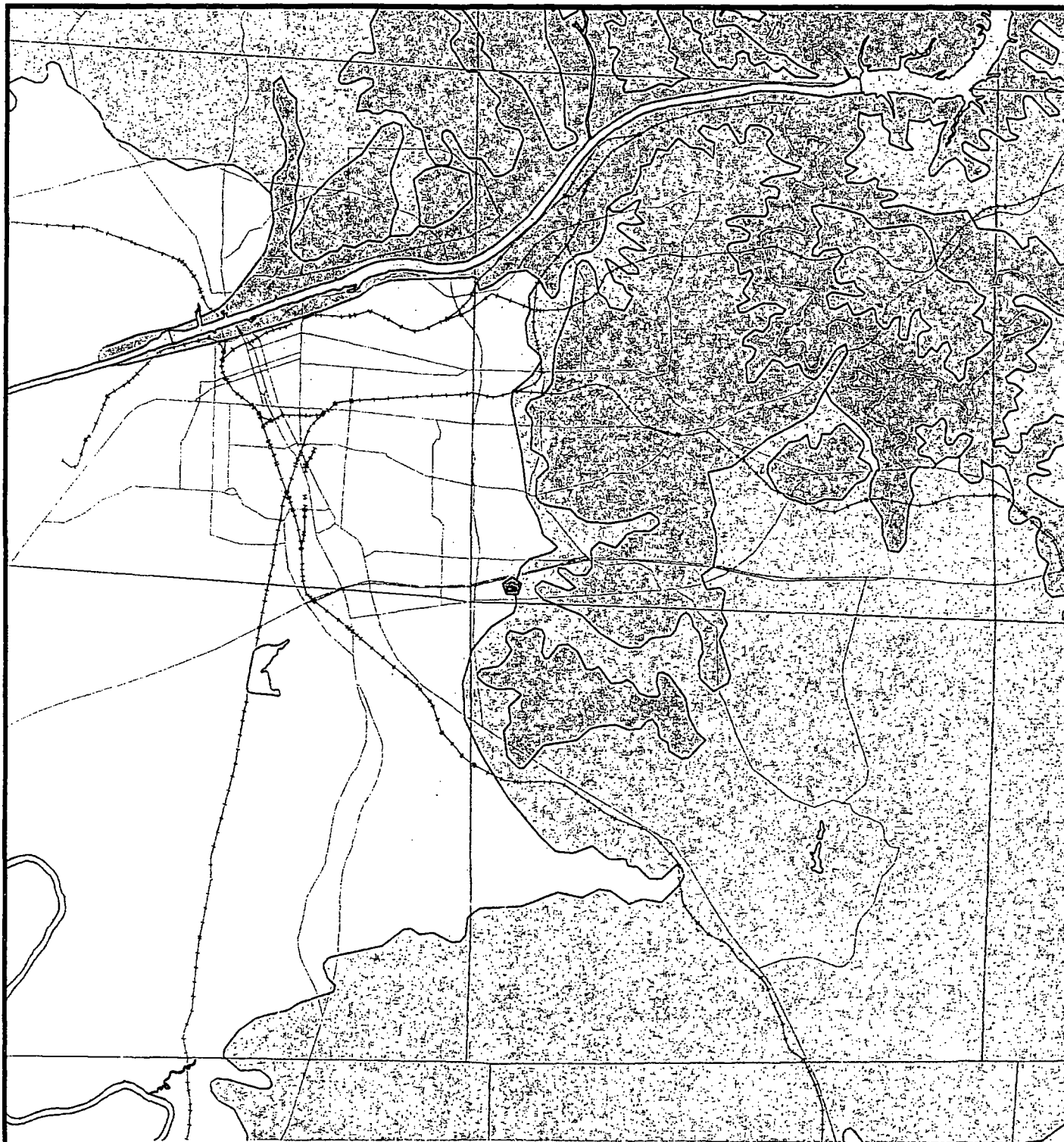
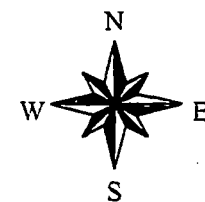
0.5 0 0.5 1 Miles














# Geologic Map Andrew Knit Site Tuscaloosa County Tuscaloosa, Alabama

-  Site Location
-  Public Wells
-  Surface Water Bodies
-  Streams
-  Roads
-  Railroads
-  Township-Range Lines
- Geologic Formation**
-  Alluvial and low terrace deposits
-  Coker Formation
-  High terrace deposits
-  Pottsville Formation (upper part)

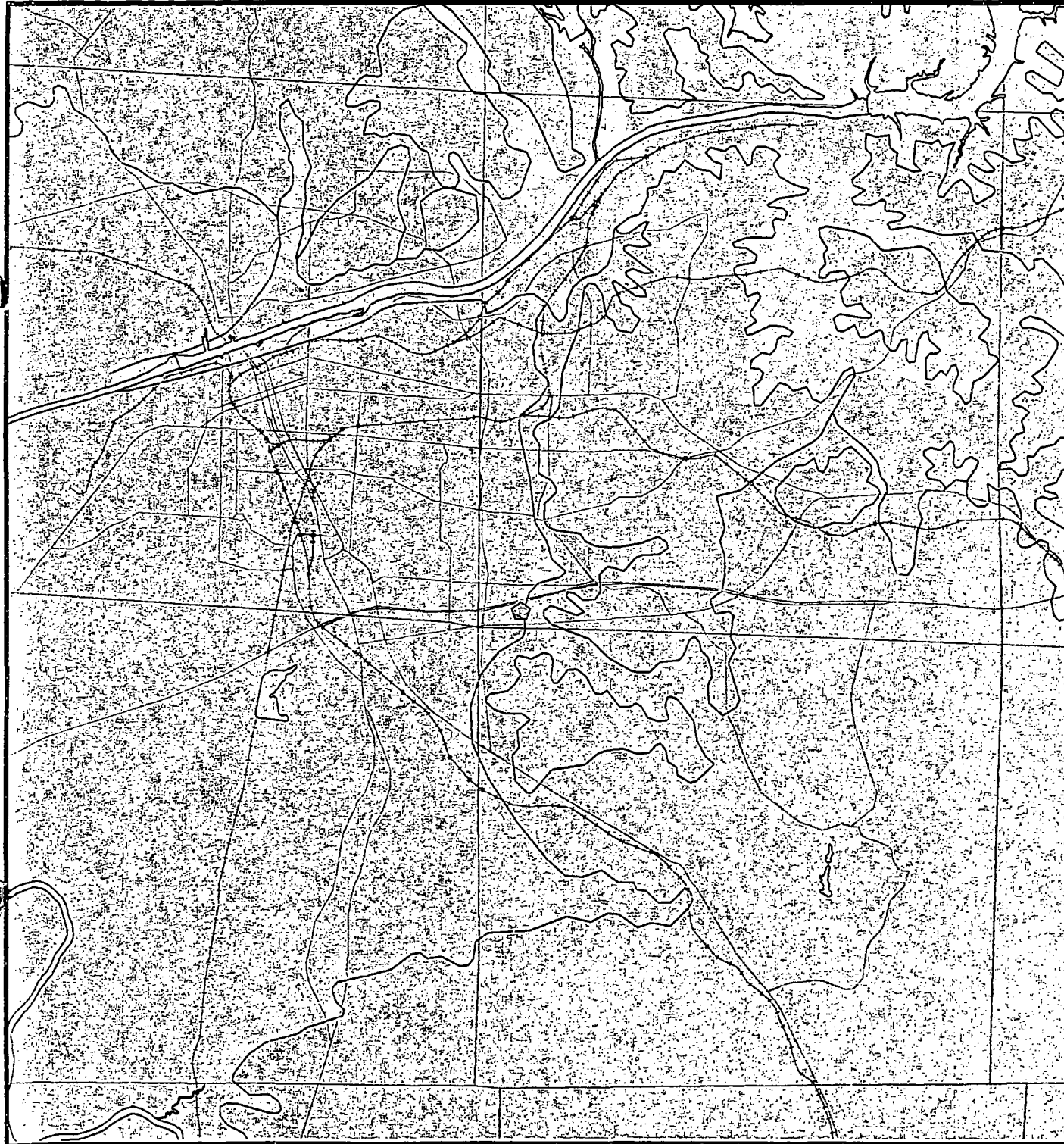
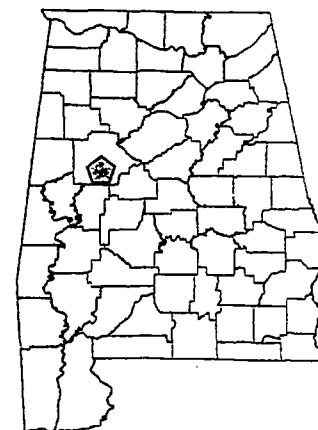
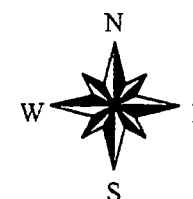
0.7 0 0.7 1.4 Miles

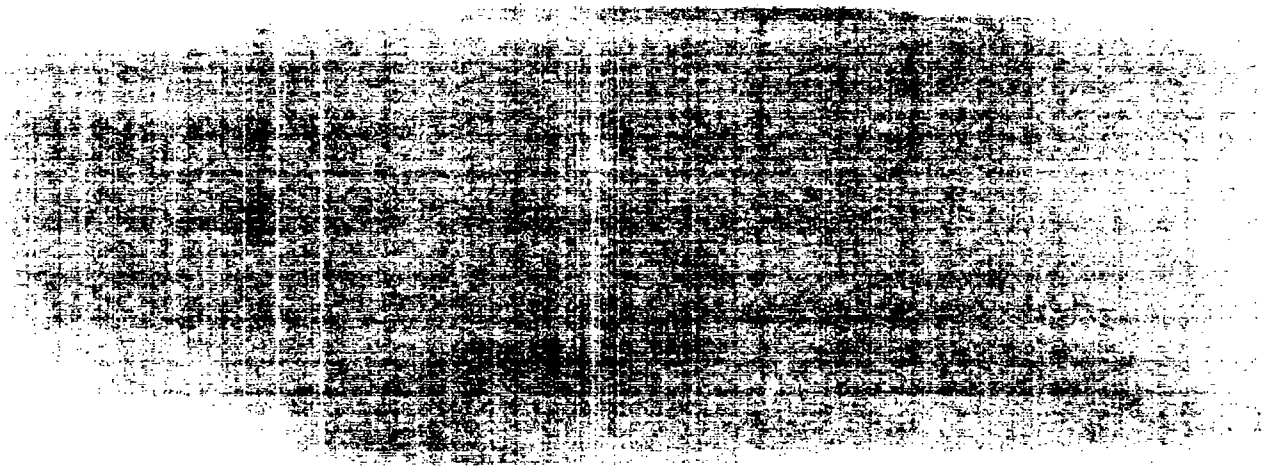



# Aquifer Recharge Areas Andrew Knit Site Tuscaloosa County Tuscaloosa, Alabama

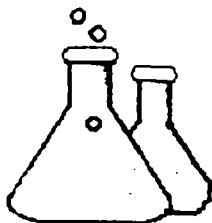
-  Site Location
-  Public Wells
-  Surface Water Bodies
-  Streams
-  Roads
-  Railroads
-  Township-Range Lines
-  Aquifer Recharge Area
-  Coker aquifer
-  Pottsville aquifer
-  Watercourse aquifer

0.7 0 0.7 1.4 Miles





REFERENCE 3



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770 [phone] (334)-277-6718 [Fax]



MAR 2003  
RECEIVED  
LAND DIVISION

## Analysis Report

Date of This Report... 2/26/2003

Fund Code: 522

Date of the Original Report... 2/26/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33676

Source... TRIP BLANK

Collection Date: 2/10/2003

Location... ANDREW KNIT

Collection Time: 9:00:00 AM

Sample Matrix: WATER

Submittal Date: 2/13/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 1:45:00 PM

Sample Received by: P. P. RUDOLPH

Date Analysis Validated... 2/26/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	2/25/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	2/25/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	2/25/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	2/25/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	2/25/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	2/25/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	2/25/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	2/25/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	2/25/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	2/25/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	2/25/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	2/25/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	2/25/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	2/25/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	2/25/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	2/25/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	2/25/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	2/25/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	2/25/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	2/25/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	2/25/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	2/25/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	2/25/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	2/25/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	2/25/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	2/25/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	2/25/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33676

page 1 of 3

## Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	2/25/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	2/25/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	2/25/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	2/25/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	2/25/2003	107-13-1	SW8260B
Allyl Chloride	< MDL	ug/L	5.0	2/25/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	2/25/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	2/25/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	2/25/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	2/25/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	2/25/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	2/25/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	2/25/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	2/25/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	2/25/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	2/25/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	2/25/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	2/25/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	2/25/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	2/25/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	2/25/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	2/25/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	2/25/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	2/25/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	2/25/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	2/25/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	2/25/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	2/25/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	2/25/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	2/25/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	2/25/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	2/25/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	2/25/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	2/25/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	2/25/2003	96-33-3	SW8260B
Methylene Chloride	7.34	ug/L	5.0	2/25/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	2/25/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	2/25/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	2/25/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	2/25/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	2/25/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	2/25/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	2/25/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	2/25/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	2/25/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	2/25/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	2/25/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	2/25/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	2/25/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	2/25/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	2/25/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	2/25/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	2/25/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	2/25/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	2/25/2003	79-01-6	SW8260B

Sample Number.....

AA33676

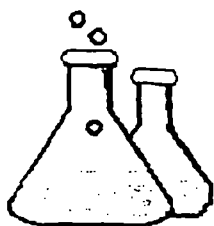
page 2 of 3

*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<b>Trichlorofluoromethane</b>	< MDL	ug/L	5.0	2/25/2003	75-69-4	SW8260B
<b>Vinyl Chloride</b>	< MDL	ug/L	5.0	2/25/2003	75-01-4	SW8260B



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770 [phone] (334)-277-6718 [Fax]



## Analysis Report

Date of This Report... 2/26/2003

Fund Code: 522

Date of the Original Report... 2/26/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33677

Source... GW - AK - 01

Collection Date: 2/11/2003

Location... ANDREW KNIT

Collection Time: 5:58:00 PM

Sample Matrix: GWATER

Submittal Date: 2/13/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 1:45:00 PM

Sample Received by: P. P. RUDOLPH

Date Analysis Validated... 2/26/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by...

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	2/25/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	2/25/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	2/25/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	2/25/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	2/25/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	2/25/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	2/25/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	2/25/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	2/25/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	2/25/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	2/25/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	2/25/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	2/25/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	2/25/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	2/25/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	2/25/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	2/25/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	2/25/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	2/25/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	2/25/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	2/25/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	2/25/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	2/25/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	2/25/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	2/25/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	2/25/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	2/25/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33677

page 1 of 3

## Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	2/25/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	2/25/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	2/25/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	2/25/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	2/25/2003	107-13-1	SW8260B
Allyl Chloride	< MDL	ug/L	5.0	2/25/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	2/25/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	2/25/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	2/25/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	2/25/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	2/25/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	2/25/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	2/25/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	2/25/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	2/25/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	2/25/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	2/25/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	2/25/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	2/25/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	2/25/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	2/25/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	2/25/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	2/25/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	2/25/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	2/25/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	2/25/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	2/25/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	2/25/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	2/25/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	2/25/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	2/25/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	2/25/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	2/25/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	2/25/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	2/25/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	2/25/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	2/25/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	2/25/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	2/25/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	2/25/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	2/25/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	2/25/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	2/25/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	2/25/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	2/25/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	2/25/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	2/25/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	2/25/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	2/25/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	2/25/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	2/25/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	2/25/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	2/25/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	2/25/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	2/25/2003	79-01-6	SW8260B

Lab Sample Number.....

AA33677

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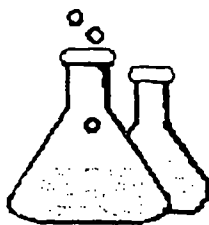
*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<b>Trichlorofluoromethane</b>	< MDL	ug/L	5.0	2/25/2003	75-69-4	SW8260B
<b>Vinyl Chloride</b>	< MDL	ug/L	5.0	2/25/2003	75-01-4	SW8260B

# ADEM MONTGOMERY LABORATORY



1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770 [phone]

(334)-277-6718 [Fax]



## Analysis Report

Date of This Report... 2/27/2003

Fund Code: 522

Date of the Original Report... 2/27/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33678

Source... GW - AK - 02

Collection Date: 2/11/2003

Location... ANDREW KNIT

Collection Time: 3:00:00 PM

Sample Matrix: GWATER

Submittal Date: 2/13/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 1:45:00 PM

Sample Received by: P. P. RUDOLPH

Date Analysis Validated... 2/27/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy. A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	2/25/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	2/25/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	2/25/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	2/25/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	2/25/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	2/25/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	2/25/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	2/25/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	2/25/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	2/25/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	2/25/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	2/25/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	2/25/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	2/25/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	2/25/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	2/25/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	2/25/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	2/25/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	2/25/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	2/25/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	2/25/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	2/25/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	2/25/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	2/25/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	2/25/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	2/25/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	2/25/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33678

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## Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	2/25/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	2/25/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	2/25/2003	108-10-1	SW8260B
Acetone	14,472	ug/L	10.0	2/25/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	2/25/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	2/25/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	2/25/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	2/25/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	2/25/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	2/25/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	2/25/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	2/25/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	2/25/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	2/25/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	2/25/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	2/25/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	2/25/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	2/25/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	2/25/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	2/25/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	2/25/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	2/25/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	2/25/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	2/25/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	2/25/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	2/25/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	2/25/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	2/25/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	2/25/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	2/25/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	2/25/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	2/25/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	2/25/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	2/25/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	2/25/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	2/25/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	2/25/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	2/25/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	2/25/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	2/25/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	2/25/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	2/25/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	2/25/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	2/25/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	2/25/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	2/25/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	2/25/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	2/25/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	2/25/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	2/25/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	2/25/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	2/25/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	2/25/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	2/25/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	2/25/2003	79-01-6	SW8260B

Lab Sample Number.....

AA33678

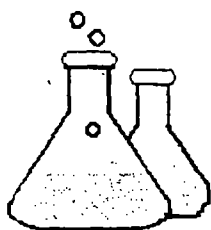
page 2 of 3

*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
Trichlorofluoromethane	< MDL	ug/L	5.0	2/25/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	2/25/2003	75-01-4	SW8260B



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

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## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33483

Source... SW-01A-AK-BWR

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 1:39:00 PM

Sample Matrix: SWATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by.... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33483

page 1 of 3

Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

Lab Sample Number.....

AA33483

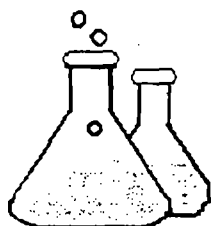
page 2 of 3

*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770 [phone] (334)-277-6718 [Fax]



## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33484

Source... SW#01B-AK-BWR

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 2:00:00 PM

Sample Matrix: SWATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33484

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Volatiles in Liquids

Analysis Performed by....

RLH

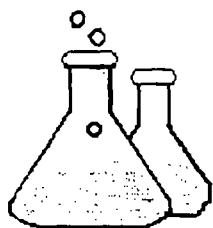
Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

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## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33485

Source... SW-01C-AK-BWR

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 2:05:00 PM

Sample Matrix: WATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33485

page 1 of 3

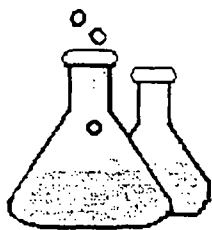
Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770 [phone] (334)-277-6718 [Fax]



## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33486

Source... SW-02A-AK-BWR

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 2:20:00 PM

Sample Matrix: WATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33486

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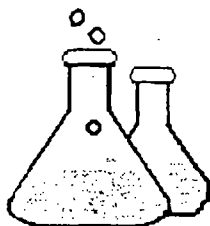
Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

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## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33487

Source... SW 02B AK-BWR

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 2:25:00 PM

Sample Matrix: SWATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33487

page 1 of 3

Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

Lab Sample Number.....

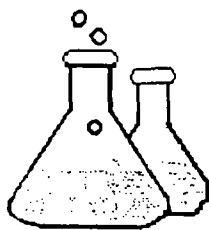
AA33487

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*Volatiles in Liquids*

*Analysis Performed by.... RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

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## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33488

Source... SW-02C-AK-BWR

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 2:30:00 PM

Sample Matrix: SWATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by.... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33488

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Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

Lab Sample Number.....

AA33488

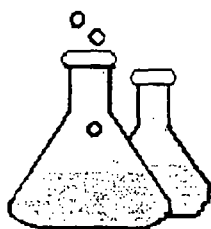
page 2 of 3

*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

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## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33489

Source... SW03A-AK-BWR

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 2:45:00 PM

Sample Matrix: SWATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33489

page 1 of 3

## Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

*Volatiles in Liquids*

*Analysis Performed by...*

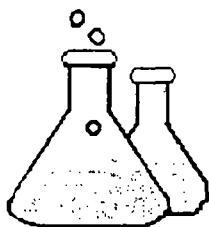
*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B

# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770 [phone] | (334)-277-6718 [Fax]



## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33490

Source... SW 03B AK BWR

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 2:48:00 PM

Sample Matrix: WATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33490

page 1 of 3

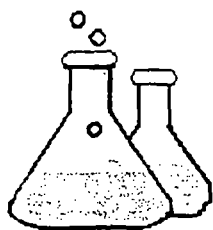
Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770 [phone] (334)-277-6718 [Fax]



## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33491

Source... SW 03C-AK-BWR

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 2:59:00 PM

Sample Matrix: SWATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33491

page 1 of 3

# Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

Lab Sample Number.....

AA33491

page 2 of 3

*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B

01241016

**ADEM**

## ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



Alabama Department of Environmental Management

**CHAIN-OF-CUSTODY**

Site Assessment Unit

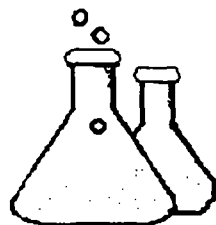
Laboratory: Montgomery ☒ Mobile ☐ Birmingham ☐

Fund Code: 521522 vap

Site Name: Andrew Knit

Laboratory I.D. No.	Sample Identification	Date	Time	Sample Type	Preservative	Analysis (Totals)					
						VOCs	Pb	As	Hg	Cd	Cr (T)
AA33483	SW-01A-AK-BWR	1/22/03	1339	SURFACE WATER	ICE	x					
AA33484	SW-01B-AK-BWR	1/22/03	1400	SURFACE WATER	ICE	x					
AA33485	SW-01C-AK-BWR	1/22/03	1405	SURFACE WATER	ICE	x					
AA33486	SW-02A-AK-BWR	1/22/03	1420	SURFACE WATER	ICE	x					
AA33487	SW-02B-AK-BWR	1/22/03	1425	SURFACE WATER	ICE	x					
AA33488	SW-02C-AK-BWR	1/22/03	1430	SURFACE WATER	ICE	x					
AA33489	SW-03A-AK-BWR	1/22/03	1445	SURFACE WATER	ICE	x					
AA33490	SW-03B-AK-BWR	1/22/03	1448	SURFACE WATER	ICE	x					
AA33491	SW-03C-AK-BWR	1/22/03	1459	SURFACE WATER	ICE	x					

Sample (s) Collected By (Signature) <i>Anne F. Cross</i>	Relinquished By (Signature) Date/Time <i>Anne F. Cross 1/24/03 0940</i>
Received In Lab By (Signature) Date/Time <i>Wernette Patrick 1-24-03 09:40</i>	Lab Comments
Send Report To: Montgomery Central Office: Land Division: Anne F. Cross	



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770 [phone] (334)-277-6718 [Fax]



## Analysis Report

Date of This Report... 2/14/2003

Fund Code: 522

Date of the Original Report... 2/14/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33492

Source... SW-04-AK-CR

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 3:09:00 PM

Sample Matrix: SWATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/14/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Trace Metals

Analysis Performed by... ADJ

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Arsenic, Total	< MDL	ug/L	10.0	2/7/2003	7440-38-2	EPA206.2
Cadmium, Total	< MDL	mg/L	0.087	2/7/2003	7440-43-9	EPA200.7
Chromium, Total	< MDL	mg/L	0.079	2/7/2003	7440-47-3	EPA200.7
Lead, Total	< MDL	ug/L	2.00	2/7/2003	7439-92-1	EPA239.2
Mercury, Total	< MDL	ug/L	0.4	2/12/2003	7439-97-6	EPA245.2

Analysis Performed by... BLR

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Chlordane	< MDL	ug/L	0.04	2/3/2003	57-74-9	SW8081A
4,4'-DDD	< MDL	ug/L	0.05	2/3/2003	72-54-8	SW8081A
4,4'-DDE	< MDL	ug/L	0.058	2/3/2003	72-55-9	SW8081A
4,4'-DDT	< MDL	ug/L	0.08	2/3/2003	50-29-3	SW8081A
Aldrin	< MDL	ug/L	0.034	2/3/2003	309-00-2	SW8081A
alpha-BHC	< MDL	ug/L	0.034	2/3/2003	319-84-6	SW8081A
beta-BHC	< MDL	ug/L	0.035	2/3/2003	319-85-7	SW8081A
delta-BHC	< MDL	ug/L	0.024	2/3/2003	319-86-8	SW8081A
Dieldrin	< MDL	ug/L	0.044	2/3/2003	60-57-1	SW8081A
Endosulfan I	< MDL	ug/L	0.03	2/3/2003	959-98-8	SW8081A
Endosulfan II	< MDL	ug/L	0.04	2/3/2003	33213-65-9	SW8081A
Endosulfan Sulfate	< MDL	ug/L	0.035	2/3/2003	1031-07-8	SW8081A
Endrin	< MDL	ug/L	0.039	2/3/2003	72-20-8	SW8081A
Endrin Aldehyde	< MDL	ug/L	0.05	2/3/2003	7421-93-4	SW8081A
Endrin Ketone	< MDL	ug/L	0.001	2/3/2003	53494-70-5	SW8081A
Heptachlor	< MDL	ug/L	0.04	2/3/2003	76-44-8	SW8081A
Heptachlor Epoxide	< MDL	ug/L	0.032	2/3/2003	1024-57-3	SW8081A
Lindane	< MDL	ug/L	0.025	2/3/2003	58-89-9	SW8081A
Methoxychlor	< MDL	ug/L	0.086	2/3/2003	72-43-5	SW8081A
Azinphos methyl	< MDL	ug/L	0.1	2/7/2003	86-50-0	SW8141

Lab Sample Number.....

AA33492

page 1 of 4

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Diazinon	< MDL	ug/L	0.01	2/7/2003	333-41-5	SW8141
Ethion	< MDL	ug/L	0.01	2/7/2003	563-12-2	SW8141
Malathion	< MDL	ug/L	0.03	2/7/2003	121-75-5	SW8141
Mevinphos	< MDL	ug/L	0.05	2/7/2003	7786-34-7	SW8141
Parathion ethyl	< MDL	ug/L	0.015	2/7/2003	56-38-2	SW8141
Parathion methyl	< MDL	ug/L	0.012	2/7/2003	298-00-0	SW8141
Toxaphene in Liquids	< MDL	ug/L	0.4	2/3/2003	8001-35-2	SW8081A

*Volatiles in Liquids*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	2/3/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	2/3/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	2/3/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	2/3/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	2/3/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	2/3/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	2/3/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	2/3/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	2/3/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	2/3/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	2/3/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	2/3/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	2/3/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	2/3/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	2/3/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	2/3/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	2/3/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	2/3/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	2/3/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	2/3/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	2/3/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	2/3/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	2/3/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	2/3/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	2/3/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	2/3/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	2/3/2003	79-46-9	SW8260B
4-Chlorotoluene	< MDL	ug/L	5.0	2/3/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	2/3/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	2/3/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	2/3/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	2/3/2003	107-13-1	SW8260B
Allyl Chloride	< MDL	ug/L	5.0	2/3/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	2/3/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	2/3/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	2/3/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	2/3/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	2/3/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	2/3/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	2/3/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	2/3/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	2/3/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	2/3/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	2/3/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	2/3/2003	67-66-3	SW8260B

# Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Chloromethane	< MDL	ug/L	5.0	2/3/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	2/3/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	2/3/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	2/3/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	2/3/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	2/3/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	2/3/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	2/3/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	2/3/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	2/3/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	2/3/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	2/3/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	2/3/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	2/3/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	2/3/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	2/3/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	2/3/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	2/3/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	2/3/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	2/3/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	2/3/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	2/3/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	2/3/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	2/3/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	2/3/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	2/3/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	2/3/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	2/3/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	2/3/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	2/3/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	2/3/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	2/3/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	2/3/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	2/3/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	2/3/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	2/3/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	2/3/2003	79-01-6	SW8260B
Trichlorofluoromethane	< MDL	ug/L	5.0	2/3/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	2/3/2003	75-01-4	SW8260B

# Semi-Volatiles in Liquids

Analysis Performed by....

WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	10.0	1/30/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	10.0	1/30/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	10.0	1/30/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	10.0	1/30/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	10.0	1/30/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	10.0	1/30/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	10.0	1/30/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	10.0	1/30/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	10.0	1/30/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	10.0	1/30/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	10.0	1/30/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	10.0	1/30/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	10.0	1/30/2003	95-57-8	SW8270C

Lab Sample Number.....

AA33492

page 3 of 4

## Semi-Volatiles in Liquids

Analysis Performed by....

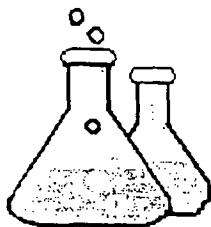
WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
2-Nitrophenol	< MDL	ug/L	10.0	1/30/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	10.0	1/30/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	10.0	1/30/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	10.0	1/30/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	10.0	1/30/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	10.0	1/30/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	10.0	1/30/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	10.0	1/30/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	10.0	1/30/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	10.0	1/30/2003	120-12-7	SW8270C
Benidine	< MDL	ug/L	10.0	1/30/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	10.0	1/30/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	10.0	1/30/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	10.0	1/30/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	10.0	1/30/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	10.0	1/30/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	10.0	1/30/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	10.0	1/30/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	10.0	1/30/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	10.0	1/30/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	10.0	1/30/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	10.0	1/30/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	10.0	1/30/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	10.0	1/30/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	10.0	1/30/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	10.0	1/30/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	10.0	1/30/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	10.0	1/30/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	10.0	1/30/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	10.0	1/30/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	10.0	1/30/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	10.0	1/30/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	10.0	1/30/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	10.0	1/30/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	10.0	1/30/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	10.0	1/30/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	10.0	1/30/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/L	10.0	1/30/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	10.0	1/30/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	10.0	1/30/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	10.0	1/30/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	10.0	1/30/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	10.0	1/30/2003	129-00-0	SW8270C

# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770(phone) (334)-277-6718 (Fax)



## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33493

Source... ~~SW-05-AK-CR~~

Collection Date: 1/22/2003

Location... ANDREW KNIT

Collection Time: 4:35:00 PM

Sample Matrix: WATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by.... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33493

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Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

Lab Sample Number.....

AA33493

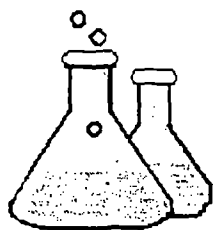
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*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B



# ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770 [phone] (334)-277-6718 [Fax]



## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33494

Source... SW-106-AK-CR

Collection Date: 1/23/2003

Location... ANDREW KNIT

Collection Time: 9:40:00 AM

Sample Matrix: SWATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by.... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33494

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## Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

Lab Sample Number.....

AA33494

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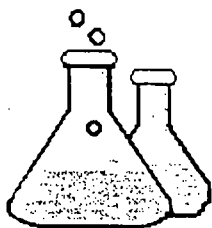
*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B

# ADEM MONTGOMERY LABORATORY



1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770 [phone]

(334)-277-6718 [Fax]



## Analysis Report

Date of This Report... 2/3/2003

Fund Code: 522

Date of the Original Report... 2/3/2003

Send Report... Anne F. Cross

Lab Sample ID: AA33495

Source... SW-07-AK-CR

Collection Date: 1/23/2003

Location... ANDREW KNIT

Collection Time: 10:05:00 AM

Sample Matrix: SWATER

Submittal Date: 1/24/2003

Sample Collector: AFCross-Cross, Anne

Submittal Time: 9:40:00 AM

Sample Received by: V. E. PATRICK

Date Analysis Validated... 2/3/2003 by WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin

Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

### Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	1/30/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	1/30/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	1/30/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	1/30/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	1/30/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	1/30/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	1/30/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	1/30/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	1/30/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	1/30/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	1/30/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	1/30/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	1/30/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	1/30/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	1/30/2003	79-46-9	SW8260B

Lab Sample Number.....

AA33495

page 1 of 3

Volatiles in Liquids

Analysis Performed by....

RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	1/30/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	1/30/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	1/30/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	1/30/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	1/30/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	1/30/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	1/30/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	1/30/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	1/30/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	1/30/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	1/30/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	1/30/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	1/30/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	1/30/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	1/30/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	1/30/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	1/30/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	1/30/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	1/30/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	1/30/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	1/30/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	1/30/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	1/30/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	1/30/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	1/30/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	1/30/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	1/30/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	1/30/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	1/30/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	1/30/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	1/30/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	1/30/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	1/30/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	1/30/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	1/30/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	1/30/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	1/30/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	1/30/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	1/30/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	1/30/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	1/30/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	1/30/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	1/30/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	1/30/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	1/30/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	1/30/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	1/30/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	1/30/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	1/30/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	1/30/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	1/30/2003	79-01-6	SW8260B

Lab Sample Number.....

AA33495

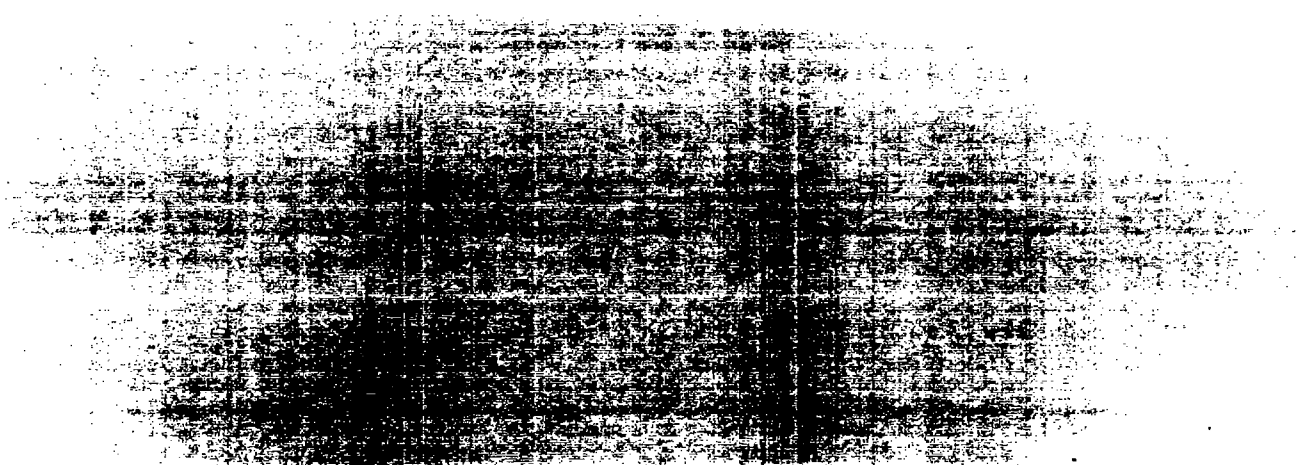
page 2 of 3

*Volatiles in Liquids*

*Analysis Performed by....*

*RLH*

<i>Parameter</i>	<i>Result</i>	<i>Units</i>	<i>MDL</i>	<i>Date of Analysis</i>	<i>CAS #</i>	<i>Method Reference</i>
<i>Trichlorofluoromethane</i>	< MDL	ug/L	5.0	1/30/2003	75-69-4	SW8260B
<i>Vinyl Chloride</i>	< MDL	ug/L	5.0	1/30/2003	75-01-4	SW8260B

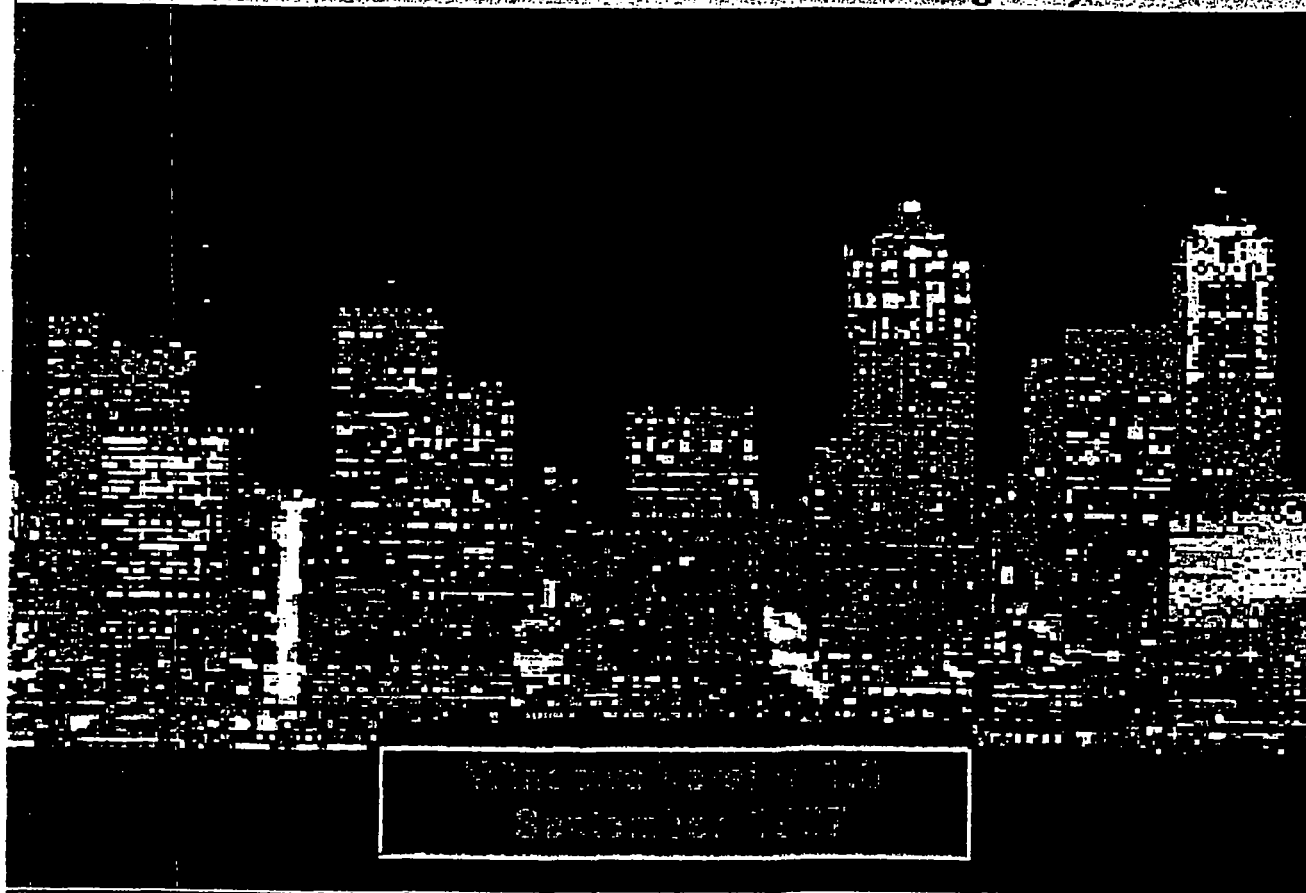


— **REFERENCE 4** —

Welcome to SCDM

Superfund Chemical Data Matrix - User Version

Developed by the Office of Emergency and Remedial Response  
United States Environmental Protection Agency



Version 4.0  
September 1987

About Search SCDM Data Additional Info



REFERENCE 5



## ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

POST OFFICE BOX 301463 36130-1463 • 1400 COLISEUM BLVD. 36110-2059

MONTGOMERY, ALABAMA

WWW.ADEM.STATE.AL.US

(334) 271-7700

JAMES W. WARR  
DIRECTOR

DON SIEGELMAN  
GOVERNOR

December 5, 2002

To: Larry Norris, Unit Chief *LN*  
Program Development Section  
Land Division

From: Anne F. Cross *AC*  
Program Development Section  
Land Division

Subject: Andrew Knit Corporation  
EPA ID # ALN0000407553  
1416 Skyland Boulevard East  
Tuscaloosa, AL

Facsimiles: (334)  
Administration: 271-7950  
General Counsel: 394-4332  
Air: 279-3044  
Land: 279-3050  
Water: 279-3051  
Groundwater: 270-5631  
Field Operations: 272-8131  
Laboratory: 277-6718  
Mining: 394-4326  
Education/Outreach: 394-4383

### Trip Report:

On October 1, 2002 Matt Thomas and I drove to downtown Montgomery, Alabama to the Alabama Archives building located on Washington Avenue. We studied old city directories and Fire Insurance (Sanborn) Maps for Tuscaloosa, Alabama.

The first listing for Andrew Knit was in the 1967 city directory. Printed in the listing was Peter Toulomelis as the manager and 100 Andrew Street as the address. In 1969 the address changed to 1000 Skyland Boulevard East, but the location of Andrew Knit was the same. According to the 1971 city directory, the corporation's name was changed to Butte Knit, a division of Johnathan Logan Inc. A couple of years later in 1973 Butte Knit's address became 1416 Skyland Boulevard East. Later, Butte Knit was changed back to its original name Andrew Knit in 1976 while attaining the same address. As we continued our search through directories, Andrew Knit was unable to be located in the 1985 city directory. After reviewing the city directories, it is believed that Andrew Knit started in 1967 and ceased business operations between 1984 and 1985.

The series of Sanborn Maps at the Alabama Archives for Tuscaloosa, Alabama ended in 1967. The Sanborn Maps did not show the area where Andrew Knit was located and this is probably because Andrew Knit had just begun operating in 1967.

A. Cross

### REFERENCE 5





## ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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MONTGOMERY, ALABAMA

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(334) 271-7700

JAMES W. WARR

DIRECTOR

DON SIEGELMAN

GOVERNOR

December 5, 2002

To: Larry Norris, Unit Chief *LN*  
Program Development Section  
Land Division

From: Anne F. Cross *AFC*  
Program Development Section  
Land Division

Subject: Andrew Knit Corporation  
EPA ID # ALN0000407553  
1416 Skyland Boulevard East  
Tuscaloosa, AL

Facsimiles: (334)  
Administration: 271-7950  
General Counsel: 394-4332  
Air: 279-3044  
Land: 279-3050  
Water: 279-3051  
Groundwater: 270-5631  
Field Operations: 272-8131  
Laboratory: 277-6718  
Mining: 394-4326  
Education/Outreach: 394-4383

### Trip Report:

On October 9, 2002 Matt Thomas and I drove to Tuscaloosa, Alabama to the former Andrew Knit site that was located at Andrews Street and Skyland Boulevard. The Andrew Knit building no longer exists, but on the site sits a Winn Dixie Marketplace and a small strip mall.

Upon arrival Matt and I used a Global Positioning System (GPS) to document the site location and possible boundaries of the old factory and other nearby buildings. I used the digital camera to take pictures of the site and surrounding areas.

We also talked with employees at Harper Chambers. Harper Chambers is located north of the old Andrew Knit building and the present Winn Dixie. Employees remembered the factory, but they did not know anything about its operation. Matt and I also talked with Winn Dixie's Manager, Leon Colvin, about the old Andrew Knit site. He did not have any knowledge of the previous building on site except that it faced McFarland Mall and Andrews Street. He gave us a phone number for Winn Dixie in Montgomery, and he stated that personal at that office could be of more help.

Matt and I went to the Tuscaloosa County Courthouse to view tax maps to determine property ownership. The following information was found while viewing maps, parcel # indices and computer software.

#### Years

2002-1990

1989-1986

1985-1967

#### Owner

Spiller Investments Inc.

Harper Chambers

Tuscaloosa Industrial Development Board (TIDB)

Andrew Knit was located on the maps and beside the name was written "Leases". Since Andrew Knit operated between the years of (1967-1984) it is believed that TIDB owned the property.

A. Cross





## ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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MONTGOMERY, ALABAMA

WWW.ADEM.STATE.AL.US

(334) 271-7700

JAMES W. WARR


DIRECTOR


BOB RILEY

GOVERNOR

February 19, 2003

To: File

Thru: Edwin Johnston, Chief   
Program Support Unit  
Environmental Assessment Section  
Land Division

From: Anne F. Cross   
Environmental Assessment Section  
Land Division

Subject: Andrew Knit Corporation  
EPA ID # ALN0000407553  
1416 Skyland Boulevard East  
Tuscaloosa, AL 35405

Facsimiles: (334)  
Administration: 271-7950  
General Counsel: 394-4332  
Air: 279-3044  
Land: 279-3050  
Water: 279-3051  
Groundwater: 270-5631  
Field Operations: 272-8131  
Laboratory: 277-6718  
Mining: 394-4326  
Education/Outreach: 394-4383

### Trip Report:

On January 22, 2003 Matt Thomas, Joe Gibson and I drove to Tuscaloosa, Alabama to conduct surface water sampling for the former Andrew Knit site.

We arrived at the River Point boat landing at 1:00 p.m. located on Highway 69 South. The surface water pathway is comprised of Cypress Creek and the Black Warrior River (BWR). We traveled in a boat down and up the BWR in order to reach the proposed sample locations. A total of three (3) cross-sections, divided in quarter locations A, B and C, were sampled along the river. Samples designated with A were taken on the east side of the BWR channel. Samples marked with a B meant the sample was taken from the center of the channel and a C indicated the sample was taken west of the main channel. These samples were analyzed for VOCs.

After sampling the BWR, we made our way up Cypress Creek to sample location number four. The sample location was close to where Cypress Creek empties into the BWR. Due to this sample location being the most down-gradient point from the site before the convergence of the BWR, surface water was collected for the analysis of VOCs, SVOCs, total metals and herbicides.

After taking the boat out of the BWR, we traveled west on Maxwell Loop Road until we came to a bridge that crossed Cypress Creek. The property surrounding the creek on both sides of the road was marked Cypress Creek Hunting Club and the property south of the creek was fenced making proposed sample location five unavailable. Sample five was collected from the bridge with the use of a peristaltic pump between proposed sample locations five and six. Sample five was analyzed for VOCs only.

We then drove to find the remaining sample locations.

Birmingham Branch  
110 Vulcan Road  
Birmingham, Alabama 35209-4702  
(205) 942-8168  
(205) 941-1603 [Fax]

Decatur Branch  
2715 Sandlin Road, S.W.  
Decatur, Alabama 35603-1333  
(256) 353-1713  
(256) 340-9359 [Fax]

Mobile Branch  
2204 Perimeter Road  
Mobile, Alabama 36615-1131  
(251) 450-3400  
(251) 479-2593 [Fax]

Mobile - Coastal  
4171 Commanders Drive  
Mobile, Alabama 36615-1421  
(251) 432-6533  
(251) 432-6598 [Fax]



Printed on Recycled Paper

On the morning of January 23, 2003 we traveled down Mamosia Park Road that led us to a country club. Located near the tenth green was Cypress Creek. Sample six was collected using the peristaltic pump from a small bridge crossing Cypress Creek. The last sample location for Cypress Creek number seven was collected behind the Quality Inn that is on Jug Factory Road near the intersection of Skyland Boulevard and McFarland Boulevard. These samples were analyzed for VOCs.

We then drove to the former Andrew Knit site and evaluated the property for potential groundwater borings.

Digital photographs were taken throughout this sampling trip.

Anne Cross

Cc: Larry Norris



## ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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MONTGOMERY, ALABAMA

WWW.ADEM.STATE.AL.US

(334) 271-7700

**JAMES W. WARR**  
DIRECTOR

**BOB RILEY**  
GOVERNOR

February 20, 2003

To: File

Thru: Edwin Johnston, Chief *EJ*  
Program Support Unit  
Environmental Assessment Section  
Land Division

From: Anne F. Cross *ASC*  
Environmental Assessment Section  
Land Division

Subject: Andrew Knit Corporation  
EPA ID # ALN0000407553  
1416 Skyland Boulevard East  
Tuscaloosa, AL 35405

Facsimiles: (334)  
Administration: 271-7950  
General Counsel: 394-4332  
Air: 279-3044  
Land: 279-3050  
Water: 279-3051  
Groundwater: 270-5631  
Field Operations: 272-8131  
Laboratory: 277-6718  
Mining: 394-4326  
Education/Outreach: 394-4383

### Trip Report:

On February 10, 2003 Matt Thomas, Joe Gibson, Arnold Mayberry, Ken Prestidge and I drove to Tuscaloosa, Alabama to conduct groundwater sampling for the former Andrew Knit site.

We arrived on site on February 11, 2003 at 7:50 a.m. Began setting up and started the first boring (B1) with continuous soil sampling at approximately 9:50 a.m. Drilling continued until approximately 83 feet below ground surface (bgs) and groundwater was discovered at 75.49 feet. According to the water level indicator there was a plentiful amount of groundwater, so well material was not needed. The slotted rod was put down into the boring and groundwater was collected at 6:58 p.m. using the check ball method. The rods were left in the ground over night.

On February 12, 2003 we arrived on site at 8:00 a.m. and began pulling rods from B1. While half of the work crew pulled the rods the remaining workers set up decon and began cleaning rods for boring two (B2). Since geological knowledge was attained from doing continuous soil sampling on the B1, continuous soil sampling was not needed on B2. The soil boring was advanced to a depth of approximately 83 feet below ground surface (bgs) and groundwater was detected at 74 feet and a sample was collected at 3:00 p.m. using the check ball method. Rods were pulled and deconed. Both borings were pressure grouted and the upper part capped with bentonite.

A. Cross

Cc: Larry Norris



**LAND DIVISION - HAZARDOUS WASTE BRANCH - ENVIRONMENTAL ASSESSMENT:  
TELEPHONE CONVERSATION RECORD**

Date: October 3, 2002  
Time: (03:00) (I called)  
Conversation with: Mrs. Margaret Lee (Assistant Manager of Debra Knit) (205) 553-7800  
Facility or Company: Andrew Knit  
1416 Skyland Boulevard  
Tuscaloosa, AL  
Regarding: Information on Andrew Knit a "cut and sew" mill.

10/3/02 (0300):

I contacted Mrs. Lee for information regarding the above site. She explained to me that Butte Knit was the main company or the line of clothing made and was located in Spartanburg, S.C. Factories such as Debra and Andrew Knit were part of the main company, but were named for people in the family. Mrs. Lee was the Assistant Manager of Debra Knit located in Northport, AL. She added that Andrew and Debra Knit were similar in operation, but that Andrew Knit was a larger factory. Debra Knit employed 259 while Andrew Knit had approximately 300 workers.

I asked Mrs. Lee if the dates of operation discovered in the city directories sounded correct for Andrew Knit. She told me that the dates, 1967 through 1984, sounded correct.

Mrs. Lee described Debra and Andrew Knit as "cut and sew" garment factories. These two factories had material shipped in rather than making their own yarn. She stated that when the large roles of material were brought in they were taken to the cutting department. Here material was cut on large tables where it was then sent to be sewed into garments. Debra Knit specialized in the making of jackets only while Andrew Knit produced a variety. Andrew Knit made mostly pants and skirts, but also sewed jackets and other articles of clothing. Each factory had a dry cleaning operation used for cleaning certain finished products. The dry cleaning process was used based on the type material used for that article of clothing. Depending on the fabric some clothes were pressed with buck presses (bottom portion of garment) and hand presses (top portion of garment). After the clothing was sewn or sewn and dry cleaned, it was bagged and shipped to the main factory (Butte Knit) in South Carolina. Here the clothing was matched and then shipped to department stores.

Mrs. Lee thinks that Olympic Mills and Butte Knit were connected in business. She thinks that Olympic Mills may have made the material for Butte Knit. She gave me a contact, Bobbie Graham, who worked for Olympic Mills.

Mrs. Lee was unable to explain the dry cleaning operation procedures. She gave me a contact, Edith Tennyson, who was Debra Knit's manager over the dry cleaning area.

A. Cross

**LAND DIVISION - HAZARDOUS WASTE BRANCH - ENVIRONMENTAL ASSESSMENT:  
TELEPHONE CONVERSATION RECORD**

Date: October 16, 2002

Time: (02:00) (I called)

Conservation with: Mrs. Telsa Tensley Property Manager for Winn Dixie 404-346-2424

Facility or Company: Andrew Knit  
1416 Skyland Boulevard  
Tuscaloosa, AL

Regarding: Information on Winn Dixie Marketplace at 1500 Skyland Boulevard

10/11/02 (0200):

I contacted Mrs. Tensley for information regarding the Winn Dixie that is now located where the above site once stood. Mrs. Tensley explained that Winn Dixie Marketplace was opened on December 1, 1994 and the property is leased from Spiller Investments. She gave me her contact with Spiller Investments, Charlie Throtman.

A. Cross

**LAND DIVISION - HAZARDOUS WASTE BRANCH - ENVIRONMENTAL ASSESSMENT:  
TELEPHONE CONVERSATION RECORD**

Date: October 16, 2002

Time: (03:15) (I called)

Conservation with: Anonymous Source (Former Employee of Andrew Knit)

Facility or Company: Andrew Knit (AK)  
1416 Skyland Boulevard  
Tuscaloosa, AL

Regarding: Information on Andrew Knit a "cut and sew" mill.

10/15/02 (0315):

An unnamed person started work sewing garments in 1966 at the pilot plant and retired from AK October 11, 1984. Before Andrew Knit was built, a pilot plant was located where the old Gaylord's Department Store once stood which is (street #) Skyland Boulevard west. Garments were sewn for practice and given to charities.

The anonymous employee explained that during the latter part of 1966 the operation was moved to its new building which is the AK site being assessed. It was a large building with a flat roof. The roof would leak and buckets were placed in areas needed to catch the rainwater.

Jonathan Logan was the name brand of clothing and was the parent company. Under the parent company were subsidiaries. Butte Knit and Act Three factories were divisions of Jonathan Logan that spun and wove the yarn for the material to be put on large rolls. The rolls of material were then shipped to other divisions like Andrew Knit (Tuscaloosa, AL), Debra Knit (Northport, AL) and Lynn Knit (Brent, AL) for the clothes to be sewn.

The former employee explained how the operations took place at AK.

Rolls of material were shipped in to AK. (mostly cotton and polyester)

The material was rolled out on large tables.

Patterns were placed over the material and pieces of material were cut.

About 50-75 patterns were cut at a time from the amount of material rolled onto the cutting table.

Each piece of material for the pattern was labeled with a number.

The pieces went through inspection.

Pieces passing inspection were sent down the line to be sewn together. (sleeves, collars, cuffs etc.)

These pieces were then sent further down the line where all pieces were sewn together to the finish garment.

Next, the garments were under pressed. Under press machines are steam irons that press certain parts of the garment. (collar, cuffs, sleeves etc.)

After the under press the garments go through another inspection

Then the garments were either dry cleaned or spot treated to ensure cleanliness.

Garments were then bulk pressed. (entire article of clothing is pressed)

Clothing was again checked for any flaws.

The garments were tagged, bagged and shipped back to Butte Knit located in Spartanburg, S.C.

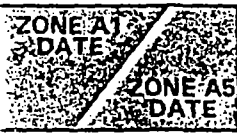
The Jonathan Logan name brand of clothing was then distributed to the department stores.

Andrew Knit closed its doors in 1984 due to inflation. The Dominican Republic was paying workers twelve cents an hour compared to workers making ten to twelve dollars an hour in the United States. Andrew Knit and the other connecting businesses of Jonathan Logan have closed. Butte Knit is still a company, but has been moved overseas.

A. Cross

**REFERENCE 6**

## KEY TO MAP

500-Year Flood Boundary	_____
100-Year Flood Boundary	_____
Zone Designations* With Date of Identification e.g., 1C 2/74	
100-Year Flood Boundary	_____
500-Year Flood Boundary	_____
Base Flood Elevation Line With Elevation In Feet**	~~~~~ 513 ~~~~~
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7x
River Mile	• M1.5

\*\*Referenced to the National Geodetic Vertical Datum of 1929

## \*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

## NOTES TO USER

## NATIONAL FLOOD INSURANCE PROGRAM

# FIRM

## FLOOD INSURANCE RATE MAP

CITY OF  
**TUSCALOOSA, ALABAMA**  
TUSCALOOSA COUNTY

**PANEL 45 OF 65**

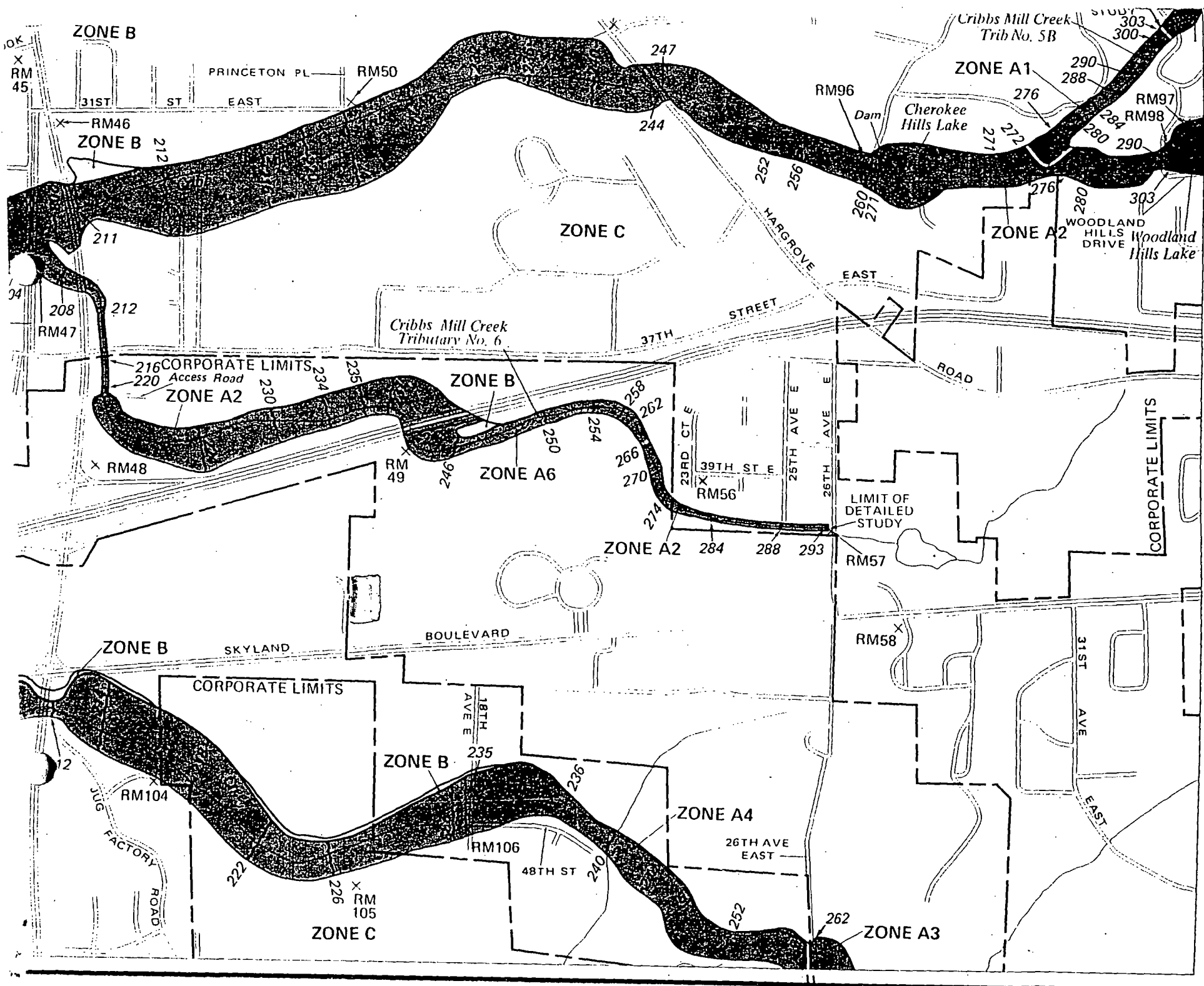
(SEE MAP INDEX FOR PANELS NOT PRINTED)

**COMMUNITY-PANEL NUMBER**  
**010203 0045 A**

**EFFECTIVE DATE:**  
**FEBRUARY 1, 1979**



**U.S. DEPARTMENT OF HOUSING  
AND URBAN DEVELOPMENT**  
**FEDERAL INSURANCE ADMINISTRATION**



REFERENCE 7

U . S . E P A R E G I O N I V

# SDMS

## Unscannable Material Target Sheet

DocID: 10580858 Site ID: ALN0000407553

Site Name: Andrew Brit

### Nature of Material:

Map: ✓

Computer Disks:           

Photos:           

CD-ROM:           

Blueprints:           

Oversized Report:           

Slides:           

Log Book:           

Other (describe): Aerial Photo Map Ref.?

Amount of material:           

**\*Please contact the appropriate Records Center to view the material.\***

REFERENCE 8



## U.S. Fish & Wildlife Service

### Daphne Ecological Services Field Office

Daphne, Alabama

[Home](#)[Email Daphne ES](#)[News Releases](#)[FAQ](#)[Activity Highlights](#)[Fact Sheets](#)[Endangered Species](#)[Section 7 Consultation](#)[Outreach & Education](#)[Event Calendar](#)[Ecosystems](#)[Office Quick Facts](#)[Office Staff](#)[SE Region](#)[USFWS](#)[Links](#)[Search](#)

#### ALABAMA'S FEDERALLY LISTED SPECIES



#### BY COUNTY

Updated - June 11, 2002

#### For the Media

[Media Queries](#)

We are continually updating this list and, therefore, it may be incomplete and is provided strictly for informational purposes. This list does not constitute any form of Section 7 consultation. We recommend that this office (Daphne, AL Field Office - USFWS) be contacted for more current, site specific information prior to project activities. To be certain of occurrence, surveys should be conducted by qualified biologists to determine if a Federally protected species occurs within a project area.

#### Key to codes on list:

E - Endangered  
T - Threatened  
CH - Critical Habitat has been designated  
PE - Proposed to be listed as Endangered  
PT - Proposed to be listed as Threatened  
PCH - Proposed Critical Habitat  
C - Candidate Species  
(P) - Possible Occurrence

#### Autauga

E - Wood stork *Mycteria americana*  
E - Alabama sturgeon *Scaphirhynchus suttkusi*  
E - Alabama canebrake pitcher plant *Sarracenia rubra ssp. alabamensis*  
T - Price's potato bean *Apios priceana*

#### Baldwin

E - Tulotoma snail *Tulotoma magnifica*  
E - Southern acornshell mussel *Epioblasma othcaloogensis*  
E - Triangular kidneyshell mussel *Ptychobranhus greenii*  
E - Southern pigtoe mussel *Pleurobema georgianum*  
T - Fine-lined pocketbook mussel *Lampsilis altilis*  
E - Upland combshell mussel *Epioblasma metastrata*  
E - Southern clubshell mussel *Pleurobema decisum*  
E - Alabama leather flower *Clematis socialis*

### Sumter

E - Wood stork *Mycteria americana*  
E - Ovate clubshell mussel *Pleurobema perovatum*  
T - Inflated heelsplitter mussel *Potamilus inflatus*  
E - Stirrup shell mussel *Quadrula stapes*  
E - Heavy pigtoe mussel *Pleurobema taitianum*  
T - Gopher tortoise *Gopherus polyphemus*

### Talladega

E - Red-cockaded woodpecker *Picoides borealis*  
T - Fine-lined pocketbook mussel *Lampsilis altilis*  
E - Coosa moccasinshell mussel *Medionidus parvulus*  
E - Southern pigtoe mussel *Pleurobema georgianum*  
E - Tulotoma snail *Tulotoma magnifica*  
T - Painted rocksnail *Leptoxis taeniata*  
T - Lacy elimia (snail) *Elimia crenatella*

### Tallapoosa

E - Red-cockaded woodpecker *Picoides borealis*  
T - Fine-lined pocketbook mussel *Lampsilis altilis*

### Tuscaloosa

E - Red-cockaded woodpecker *Picoides borealis*  
T - Flattened musk turtle *Stemotherus depressus*  
E - Southern clubshell mussel *Pleurobema decisum*  
E - Dark pigtoe mussel *Pleurobema furvum*  
E - Ovate clubshell mussel *Pleurobema perovatum*  
T - Alabama moccasinshell mussel *Medionidus acutissimus*  
T - Inflated heelsplitter mussel *Potamilus inflatus*  
T - Fine-lined pocketbook mussel *Lampsilis altilis*  
T - Orange-nacre mucket mussel *Lampsilis perovalis*

C - Black Warrior waterdog *Necturus alabamensis*  
C - White fringeless orchid *Platanthera integrilabia*

REFERENCE 9

WARD M. MCFARLAND  
PRESIDENT

J. W. BILL MCFARLAND  
VICE PRESIDENT & SECRETARY

WARD MCFARLAND, INC.  
*Real Estate "Imaginers"*

325 SKYLAND BLVD. EAST  
TUSCALOOSA, ALABAMA 35405

TELEPHONE A/C 205 759-5161  
FAX A/C 205 759-5163

P.O. BOX 71025  
TUSCALOOSA, ALABAMA 35407-1025

SEP 2002  
RECEIVED  
IND. DIVISION

September 12, 2002

Ms. Anne F. Cross  
ADEM  
P. O. Box 301463  
Montgomery, AL 36130-1463

Dear Ms. Cross:

I have checked my files trying to locate the information I had on the Butte Knit Plant which was located immediately East and up the hill from McFarland Mall. I have been unable to locate my files on them but do have some information that I can give you from memory.

Butte Knit in the 1960's and 1970's was located in Spartanburg, S.C. and was mainly a "cut & sew" ladies knit dress operation. The President of the Company at that time was Andrew Teszler but he has been dead since the mid 1970's. Butte Knit was owned by Johnathan Logan of New York City, New York. I think that Johnathan Logan has been sold several times during the years and now exists under an entirely different corporation and there may have been a couple of bankruptcys along the way. At that time, the President of Johnathan Logan was Dick Schwartz.

That is all the information that I can recall from memory but will forward any additional information to you if I can find it in my files.

Very truly yours,

WARD MCFARLAND, INC.

BY: 

Ward M. McFarland, President

WMMcF:jp

REFERENCE 10

U . S . E P A R E G I O N I V

# SDMS

## Unscannable Material Target Sheet

DocID: 10580858 Site ID: ALN 0000407553

Site Name: Andrew Breit

### Nature of Material:

Map: ✓

Computer Disks:           

Photos:           

CD-ROM:           

Blueprints:           

Oversized Report:           

Slides:           

Log Book:           

Other (describe): Radius Map Ref 10

Amount of material:           

\* Please contact the appropriate Records Center to view the material.\*

# Profiles of General Demographic Characteristics **2000**

---

Issued May 2001

*2000 Census of Population and Housing*

**Alabama**



**U.S. Department of Commerce**  
**Donald L. Evans,**  
Secretary

**Economics  
and Statistics  
Administration**  
**J. Lee Price,**  
Acting Under Secretary for  
Economic Affairs

**U.S. CENSUS BUREAU**  
**William G. Barron, Jr.,**  
Acting Director

**Table DP-1. Profile of General Demographic Characteristics: 2000**

Geographic Area: Tuscaloosa city, Alabama

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total population</b> .....	<b>77,906</b>	<b>100.0</b>	<b>HISPANIC OR LATINO AND RACE</b>		
<b>SEX AND AGE</b>			<b>Total population</b> .....	<b>77,906</b>	<b>100.0</b>
Male.....	37,081	47.6	Hispanic or Latino (of any race).....	1,092	1.4
Female.....	40,825	52.4	Mexican.....	585	0.8
Under 5 years.....	4,451	5.7	Puerto Rican.....	96	0.1
5 to 9 years.....	4,342	5.6	Cuban.....	56	0.1
10 to 14 years.....	4,097	5.3	Other Hispanic or Latino.....	355	0.5
15 to 19 years.....	8,280	10.6	Not Hispanic or Latino.....	76,814	98.6
20 to 24 years.....	13,370	17.2	White alone.....	41,667	53.5
25 to 34 years.....	10,536	13.5	<b>RELATIONSHIP</b>		
35 to 44 years.....	9,288	11.9	<b>Total population</b> .....	<b>77,906</b>	<b>100.0</b>
45 to 54 years.....	8,996	11.5	In households.....	69,804	89.6
55 to 59 years.....	2,894	3.7	Householder.....	31,381	40.3
60 to 64 years.....	2,487	3.2	Spouse.....	10,995	14.1
65 to 74 years.....	4,884	6.3	Child.....	17,624	22.6
75 to 84 years.....	3,145	4.0	Own child under 18 years.....	13,170	16.9
85 years and over.....	1,136	1.5	Other relatives.....	4,130	5.3
Median age (years).....	28.4	(X)	Under 18 years.....	1,913	2.5
18 years and over.....	62,466	80.2	Nonrelatives.....	5,674	7.3
Male.....	29,216	37.5	Unmarried partner.....	1,216	1.6
Female.....	33,250	42.7	In group quarters.....	8,102	10.4
21 years and over.....	53,163	68.2	Institutionalized population.....	1,934	2.5
62 years and over.....	10,603	13.6	Noninstitutionalized population.....	6,168	7.9
65 years and over.....	9,165	11.8	<b>HOUSEHOLD BY TYPE</b>		
Male.....	3,552	4.6	<b>Total households</b> .....	<b>31,381</b>	<b>100.0</b>
Female.....	5,613	7.2	Family households (families).....	16,931	54.0
<b>RACE</b>			With own children under 18 years.....	7,506	23.9
One race.....	77,228	99.1	Married-couple family.....	10,995	35.0
White.....	42,143	54.1	With own children under 18 years.....	4,258	13.6
Black or African American.....	33,287	42.7	Female householder, no husband present.....	4,933	15.7
American Indian and Alaska Native.....	127	0.2	With own children under 18 years.....	2,888	9.2
Asian.....	1,162	1.5	Nonfamily households.....	14,450	46.0
Asian Indian.....	235	0.3	Householder living alone.....	11,058	35.2
Chinese.....	458	0.6	Householder 65 years and over.....	2,919	9.3
Filipino.....	68	0.1	Households with individuals under 18 years.....	8,542	27.2
Japanese.....	117	0.2	Households with individuals 65 years and over.....	6,518	20.8
Korean.....	140	0.2	Average household size.....	2.22	(X)
Vietnamese.....	38	-	Average family size.....	2.93	(X)
Other Asian <sup>1</sup> .....	106	0.1	<b>HOUSING OCCUPANCY</b>		
Native Hawaiian and Other Pacific Islander.....	19	-	<b>Total housing units</b> .....	<b>34,857</b>	<b>100.0</b>
Native Hawaiian.....	8	-	Occupied housing units.....	31,381	90.0
Guamanian or Chamorro.....	3	-	Vacant housing units.....	3,476	10.0
Samoan.....	4	-	For seasonal, recreational, or		
Other Pacific Islander <sup>2</sup> .....	4	-	occasional use.....	153	0.4
Some other race.....	490	0.6	Homeowner vacancy rate (percent).....	2.1	(X)
Two or more races.....	678	0.9	Rental vacancy rate (percent).....	11.3	(X)
<b>Race alone or in combination with one</b>			<b>HOUSING TENURE</b>		
<b>or more other races:</b> <sup>3</sup>			<b>Occupied housing units</b> .....	<b>31,381</b>	<b>100.0</b>
White.....	42,659	54.8	Owner-occupied housing units.....	14,973	47.7
Black or African American.....	33,580	43.1	Renter-occupied housing units.....	16,408	52.3
American Indian and Alaska Native.....	345	0.4	Average household size of owner-occupied units.....	2.43	(X)
Asian.....	1,371	1.8	Average household size of renter-occupied units.....	2.04	(X)
Native Hawaiian and Other Pacific Islander.....	49	0.1			
Some other race.....	671	0.9			

- Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup> Other Asian alone, or two or more Asian categories.<sup>2</sup> Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.<sup>3</sup> In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.

REFERENCE 12

**GROUNDWATER QUALITY ASSESSMENT REPORT  
NORTHINGTON CLEANERS  
900 SKYLAND BOULEVARD EAST  
TUSCALOOSA, TUSCALOOSA COUNTY, ALABAMA  
BHATE PROJECT NO.: 9010095**



**Prepared for:**

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
P.O. BOX 301463  
MONTGOMERY, ALABAMA 36130**

**ATTENTION: MR. STEPHEN A. COBB- HAZARDOUS WASTE BRANCH**

**PREPARED BY:**

**BHATE ENVIRONMENTAL, INC.  
1608 13<sup>TH</sup> AVENUE SOUTH  
BIRMINGHAM, ALABAMA 35205  
(205) 918-4000**



**Bhate Environmental Associates, Inc.**  
Environmental Engineers & Scientists



Bhate Environmental Associates, Inc.  
Environmental Engineers and Scientists  
1608 13th Avenue South, Suite 300  
Birmingham ■ Alabama ■ 35205  
(205) 918-4000  
(205) 918-4050 (FAX)

September 7, 2001

Alabama Department of Environmental Management  
P.O. Box 301463  
Montgomery, Alabama 36130

Attention: Mr. Stephen A. Cobb, Chief  
Hazardous Waste Branch  
Land Division

Subject: Groundwater Quality Assessment Report  
Northington Cleaners  
900 Skyland Blvd. East  
Tuscaloosa, Tuscaloosa County, Alabama  
USEPA ID No. ADL981476781  
Bhate Project No.: 9010095

Dear Mr. Cobb:

Bhate Environmental Associates, Inc. (BHATE) has prepared the attached Groundwater Quality Assessment Report for the Northington Cleaners facility in Tuscaloosa, Alabama.

Evidence of soil and groundwater contamination was discovered following a Phase I ESA and verbally reported to the Alabama Department of Environmental Management (ADEM) on August 21, 1997. Mr. Fred Mason of ADEM requested submittal of a work plan to further define the lateral and vertical extent of contamination. The work plan, dated December 21, 1998, was prepared by Bhate and submitted to ADEM. ADEM subsequently requested addendums to the work plan. The scope of work was conducted in accordance with the work plan dated December 21, 1998 (with addendums dated June 2, 1999, August 24, 1999 and May 9, 2001), prepared for McFarland Mall LTD and submitted to ADEM by Bhate.

Should you have any questions or need additional information, please do not hesitate to contact us at (205) 918-4000.

Respectfully Submitted,  
**BHATE ENVIRONMENTAL ASSOCIATES, INC.**

Emmett A. Beers, P.G.  
Senior Project Manager

Louis M. Montgomery, P.E.  
Regulatory Compliance Director

cc: Mr. Ward McFarland, McFarland Mall, LTD w/attachments  
I:\PROJECTS\BEA\2001\9010095\ASSMNT RPT 6-14-01.DOC



## CERTIFICATION PAGE

I certify under penalty of law that I am a registered professional geologist experienced in hydrogeologic investigations. The investigation described in this report was performed under the direct supervision of a registered geologist experienced in hydrogeologic investigations. The information submitted herein, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that there are significant penalties for submitting false information.



Emmett A. Beers, P.G.

869

Alabama Registration Number

September 7, 2001

Date



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### **TABLES**

- Table 1 - Groundwater Elevation and Well Construction Data
- Table 2 – Laboratory Analytical Results for Soil Samples
- Table 3 - Analytical Results for Groundwater Samples – Geoprobe
- Table 4 – Analytical Results for Groundwater Samples – Monitoring Wells

### **APPENDICES**

- Appendix A - Boring Logs and Well Construction Diagrams
- Appendix B - Slug Test Results
- Appendix C - Soil Laboratory Reports and Chain-of-Custody Documentation
- Appendix D - Groundwater Laboratory Reports and Chain-of-Custody Documentation



## 1.0 SITE HISTORY

### 1.1 Site Location and Description

The subject site is the Northington Dry Cleaners, located at 900 Skyland Boulevard East in Tuscaloosa, Alabama (Figure 1). The dry cleaner facility is located next to a Books-A-Million Store in an out parcel building within the McFarland Mall property (Figure 2). Dry-cleaning operations were performed at the facility from about 1969 to 1993. The dry cleaning machine has been removed from the site and the facility is now a laundry drop off/pick up location.

The building is brick construction with a concrete slab on grade floor. Some dark stains were observed on the floor where a dry cleaning machine was previously located.

### 1.2 Investigative Background Information

A soil and groundwater sampling program was initiated at the site in conjunction with proposed refinancing of the McFarland Mall property. On July 25, 1997, soil samples were collected at three locations (SB-1 through SB-3) inside the building (Figure 3). Eight additional soil probes (SB-4 through SB-11) were advanced outside the building for collection of soil. Groundwater samples were taken from four of the soil probe locations. Soil and groundwater samples were taken with a Geoprobe direct push system.

Soil analytical results (Table 2) indicate the presence of tetrachloroethene (PCE) and other chlorinated solvents. Soil sample depths ranged from immediately beneath the building and the adjacent parking lot to points about 25 feet beneath the surface (Figure 3). The highest concentration of PCE detected was 1,540 parts per billion (ppb) at SB-3, beneath the concrete floor inside the cleaning facility.

Chlorinated solvents were also detected in each of four groundwater samples (TMW-1 through TMW-4; Figure 3), collected with the Geoprobe sampler at locations outside the building. PCE concentrations ranged from 52 parts-per-billion (ppb), to 83 ppb. The maximum contaminant level (MCL) for PCE is 5 ppb. Trichloroethene was detected in all four temporary wells, at concentrations above the 5 ppb MCL. Cis 1,2-dichloroethene was detected in groundwater sampled from one of the temporary wells (TMW-4), at a concentration slightly exceeding the MCL of 70 ppb.

The soil and groundwater sampling results were verbally reported to the Alabama Department of Environmental Management (ADEM) on August 21, 1997. Mr. Fred Mason of the Groundwater Branch at ADEM requested that the results of initial soil and groundwater sampling be submitted in writing to the ADEM, along with a plan to further delineate the extent of chlorinated solvents in soil and groundwater.



Delineation of the chlorinated solvent plume was continued during October 1997. During this investigation, six new monitoring wells (MW-01 through MW-06) were installed using the Geoprobe Direct Push System (Figure 2). During the installation of the monitoring wells soil samples were taken at five-foot intervals, until either refusal or groundwater was encountered. Soil and groundwater samples from each well were sent to Specialized Assays in Nashville, Tennessee for laboratory analysis.

In November 1997, after the initial delineation, five additional monitoring wells (MW-07 through MW-11) were installed using the Geoprobe Direct Push System (Figure 2). Groundwater samples were then collected from this group of five wells and sent to Specialized Assays for analysis. The analytical results for the groundwater sampling are summarized in Table 4.

Bhate prepared a Groundwater Quality Assessment Plan and submitted it to ADEM on December 21, 1998. ADEM comments were received in a letter dated June 28, 1999. Bhate's work plan basically consisted of a two-phase approach. The first phase of work would define the lateral and vertical extent of PCE contamination using a Geoprobe system to advance temporary sampling devices to various depths at a minimum of 12 locations around the site and in the nearby highway rights of way. Groundwater grab samples would be collected and analyzed in the field using a mobile laboratory.

The second phase of work, as proposed in the work plan, would have involved the installation of permanent .75-inch PVC monitoring wells using the Geoprobe system. ADEM requested that the plan show well installations with a minimum well casing diameter of two inches. On August 24, 1999 Bhate submitted a revised work plan that provided for the installation of 2-inch diameter monitoring wells. The revised work plan was approved by ADEM on October 4, 1999.

Bhate advanced one deep Geoprobe boring (B-1) in May 2000 in an effort to define the vertical extent of PCE contamination in groundwater at the site (Figure 3). Soil samples were collected at depths of 32 to 36 feet and 40 to 44 feet beneath the ground surface. PCE was not detected in the soil samples. The probe technique achieved a maximum sampling depth of 75 feet. Analytical results of a groundwater sample collected from this depth indicated a PCE concentration of 860 ppb.

Bhate met with ADEM in October 2000 to discuss proceeding with proposed assessment activities at the Northington Cleaners site. Bhate described the findings of the deep Geoprobe sampling effort conducted in May 2000. The results indicated that drilling techniques other than previously proposed auger drilling would be necessary due to the difficult subsurface conditions such as flowing sands and potential well installation depths up to 130 feet. The vibratory or sonic drilling technique was introduced and literature describing the drilling process was provided to ADEM. It was decided during this meeting that Bhate should proceed with definition of the lateral extent of the groundwater plume using the Geoprobe system



and a mobile laboratory. This work was conducted during December 2000 through April 2001.

Bhate proposed that the deep well installations be limited to two wells and to depths no greater than the Coker/Pottsville Formation boundary. ADEM stated that it would be necessary to see the results of the initial two deep wells before making a decision on further testing. Bhate submitted a work plan addendum dated May 9, 2001 to include sonic drilling technique for well installation and proposed well locations. ADEM approved the plan, with conditions, in a letter dated May 14, 2001. This report details the activities carried out in accordance with the work plan.



## **2.0 SITE CHARACTERIZATION**

### **2.1 Potential Receptors**

The Northington Cleaners site is located in a commercial area within the City of Tuscaloosa business district. The current off-site surrounding land use within 500 feet of the site is commercial and is not expected to change significantly in the foreseeable future. The nearest residences are approximately 1,000 feet to the south of the site. Skyland Elementary School is located about 2,000 feet west of the site.

The only potential receptors near the dry cleaner are underground utilities (described in Section 3.3). The primary utility of concern is the sanitary sewer main extending along Skyland Boulevard. Sanitary sewer plans obtained from the city of Tuscaloosa indicate that the sewer main is constructed at depths of about 10 feet. The approximate depth to groundwater at the lower elevations of Skyland Boulevard is about 12 to 13 feet. Other underground utilities are present at depths less than five feet and would have a low potential to come into contact with groundwater contaminants.

### **2.2 Well Inventory**

A well inventory was performed via a literature search for the surrounding area. The following references were reviewed:

1. Geohydrology and Susceptibility of Major Aquifers to Surface Contamination in Alabama; Area 6, US Geological Survey Water Resources Investigations Report 87-4113, 1987.
2. Groundwater Availability in Tuscaloosa, Alabama, Special Map 219, 2. Geological Survey of Alabama, 1990.

The literature references did not indicate the presence of any domestic or municipal supply wells within two miles of the site. Additionally, a driving/walking survey of the area was completed to visually inspect the surrounding properties for evidence of water supply wells in the area. No evidence of water supply wells was observed. The Tuscaloosa Water Works supplies potable water within the City of Tuscaloosa including the area of the subject site. The public water supply source is Lake Tuscaloosa, located approximately six miles northeast of the site. The site does not lie within a wellhead protection area.

### **2.3 Underground Utility Survey**

The Alabama Line Locator Service conducted a utility survey within the immediate vicinity of Northington Cleaners. Numerous underground utilities are



located along Skyland Boulevard and McFarland Boulevard, including fiber optic cable, telephone, natural gas, water, storm sewer, and sanitary sewer lines. A sanitary sewer main extends along the north side of Skyland Boulevard in an east/west direction. This is the only utility identified that appears to have the potential to be impacted by the groundwater plume. However, monitoring of the sanitary sewer with a Photoionization Detector (PID) did not indicate the presence of organic vapors. The location of the identified utilities is presented on Figure 2.

## **2.4 Regional Geology and Hydrogeology**

The site is within the Alluvial Plain district of the East Gulf Coastal Plain Physiographic section. The area of the site is underlain by Quaternary alluvium and the Coker Formation of Cretaceous age. The Coker Formation consists of a basal nonmarine zone of gravel, marine sand and clay. A clay zone is usually present at the top of the Coker Formation; however, it has been eroded away in the area of the site. The thickness of the Coker Formation ranges from less than 100 feet where only the basal beds remain, to over 1000 feet to the south in Greene County. The Coker Formation is the lowest unit of the Tuscaloosa Aquifer. The site is located within five miles of the up dip limit of the Tuscaloosa Aquifer, a potential source of potable water.

The Pennsylvanian-age Pottsville Formation underlies the Coker Formation. The Pottsville generally consists of consolidated and tightly cemented interbeds of quartzose sandstone, shale, siltstone, conglomerate, clay, and limestone. The Pottsville Formation does not typically contain adequate groundwater volumes for usable water supply.

## **2.5 Site Geology and Hydrogeology**

The site is underlain by Quaternary alluvium eroded from the Coker Formation. The alluvium is primarily clayey silt, with zones of interbedded quartz pebbles. It occurs from the surface to depths of about six (6) to eight (8) feet below the land surface (bls). Fine to medium grained sands with occasional thin interbedded clay lenses underlie the alluvium and extend to a clay zone at a depth of about 95 to 100 feet, just above the Pottsville Formation. A representative sample of Coker Formation sand was collected for grain size analysis from boring MW-14 at a depth of 46 to 50 feet. The results of the testing indicate that the soil consists of fine to medium-grained sand with minor silt content. The laboratory report for the sample is included in Appendix B.

Evidence of laterally extensive clay lenses that may function as confining units were not encountered during the drilling program. Although very dense clay was encountered at a depth of about 60 to 65 feet at the MW-12 location, it was not encountered at any other boring locations. Another dense clay zone, about 10 feet thick, was also encountered at the base of the Coker Formation. Observations during deep drilling activities indicate that the upper surface of the Pottsville Formation,



which immediately underlies the Coker Formation, is about 112 feet below the surface at the site. The Pottsville Formation rocks consisted of dry greenish-gray cemented sandstone and gray shale.

Depth to groundwater at the site is about 20 to 26 feet beneath the ground surface or at an elevation of approximately 200 to 206 feet above sea level. Saturated conditions were present from the top of the water table to a clay zone overlying the Pottsville Formation. Groundwater appears to exist under unconfined conditions at the site.

## **2.6 Surveying and Well Gauging**

The ground and top of well casing elevation were located vertically using a transit level and surveying staff to the nearest 100<sup>th</sup> of one foot. An on-site benchmark was established with an elevation of 230 ft. National Vertical Geodetic Datum, 1929 (NGVD) based upon elevations depicted on the Tuscaloosa Quadrangle 7.5 Minute Series Topographic Map. Fluid levels in each of the monitoring wells were measured with an electronic measuring tape accurate to the nearest 100<sup>th</sup> of a foot.

Using data collected during the surveying and from the well gauging tape, relative groundwater elevations were measured for each monitoring well location. A summary of the stabilized static water level measurements obtained on May 29, 2001 is presented in Table 1. The groundwater elevation data was used to prepare a map of the potentiometric surface. Based on this data it appears that groundwater movement beneath the site is generally towards the west (Figure 4).

Groundwater elevations were compared between deep wells (MW-12 and MW-18) installed on top of the Pottsville Formation and nearby wells completed at shallower depths. Groundwater elevations in shallow and deep wells were very similar (less than 0.5 foot difference). The similarity of groundwater elevations plus the absence of laterally extensive confining units indicates the Coker Aquifer is interconnected from the water table surface to the top of the Pottsville Formation.



### 3.0 SOIL CONTAMINATION ASSESSMENT

The evaluation of the extent of impacted soils on site was based upon the results of soil samples collected and analyzed during the initial assessment activities conducted in 1997. Previously completed soil sample collection and analysis has been summarized in Section 1.2 of this report. Review of the soil sampling results indicates the lateral and vertical extent of chlorinated solvents in soil is relatively well defined (Figure 3). A summary of the soil analytical test results is presented in Table 2.

The highest PCE concentration detected in soil was 1,540 ppb detected in a soil sample collected just beneath the floor of the dry cleaner. Although ADEM has not established soil cleanup standards for chlorinated solvents in soil at dry cleaner sites, EPA Region III has developed risk based soil-screening levels. The EPA Region III Risk Based Concentration value for PCE is 110,000 ppb at industrial sites and 1,200 for residential sites. None of the remaining chlorinated solvents were detected at concentrations exceeding the respective risk based concentration values.



#### 4.0 SURFACE WATER EVALUATION

The nearest surface water is Cypress Creek located approximately 600 feet south of the site. The creek flows east to west. The groundwater elevation measured in monitoring well MW-15, near the creek, is similar to the creek elevation. Groundwater from the uppermost portion of the shallow aquifer is probably discharging to Cypress Creek. The groundwater sampled from a depth of about 24 feet at GP-8, located about 250 feet upgradient of the creek, did not contain detectable concentrations of PCE. Groundwater sampled from a depth of about 49 feet in well MW-15, located about 100 feet upgradient of the creek, contained a PCE concentration of 16.8 ppb. Therefore, it appears that the potential for chlorinated solvents in shallow groundwater to impact surface water quality in Cypress Creek is low.



## 5.0 GROUNDWATER CONTAMINATION ASSESSMENT

Assessment of the groundwater at the Northington Cleaners site began in 1997 with the installation of 11 Geoprobe monitoring wells near Northington Cleaners. These subsequent investigations were conducted in an effort to define the lateral and vertical extent of PCE in groundwater.

### 5.1 Geoprobe Sampling Program

In order to determine the optimal location of permanent monitoring wells, Bhate installed temporary Geoprobe soil borings/monitoring wells and collected groundwater samples from shallow and/or deep groundwater zones. A total of 27 probes were advanced during sampling programs conducted during December 2000, and January and April of 2001. A mobile laboratory was used to analyze samples during the December 2000 effort. Analytical laboratories analyzed samples collected during the January and April 2001 efforts.

Each groundwater sample was collected by advancing a discreet zone sampling device to the target sampling depth. The sampling device consisted of a Geoprobe Screen Point 15, which consists of a 4-foot stainless steel wire-wound screen housed in a protective steel sheath sealed with O-rings. This system eliminates the threat of formation fluids entering the screen before deployment and assures sample integrity. The sampling device was then opened, exposing the 4-foot screen. Groundwater samples were collected using a stainless steel check ball valve attached to dedicated polyethylene tubing. The samples were placed in 40-ml vials for immediate analysis by the mobile laboratory or were shipped to an analytical laboratory. The mobile laboratory analyzed groundwater samples for PCE only using a 9300 SRI Purge and Trap gas chromatograph equipped with a photoionization detector and a flame ionization detector. The samples sent to the analytical laboratory were analyzed for volatile organic compounds by EPA Method 8260.

After sample collection, each probe hole was grouted to the surface with cement bentonite grout using a Geoprobe grout pump and tremie pipe.

The analytical results for groundwater samples collected during the Geoprobe sampling program are summarized in Table 3. Initial groundwater samples collected from a depth of 24 feet at each corner of the McFarland/Skyland Boulevard intersection and west of the dry cleaner did not indicate PCE concentrations greater than 5 ppb. However, a groundwater sample collected from a depth of 52 feet at GP-1 on the third day of sampling indicated a PCE concentration of 1,208 ppb (Figure 5). Most of the subsequent sampling efforts were focused on depths of about 50 feet, which was also refusal depth for most of the probe attempts.



The results of the initial 18 probe locations conducted in December 2000 indicated that detectable PCE concentrations in the upper portion of the water table do not appear to extend beyond McFarland Boulevard to the west and Skyland Boulevard to the south of the dry cleaner. The deeper, approximately 50-foot, sample results indicated that PCE extended at least 600 feet to the west in a downgradient direction but was not completely defined. PCE concentrations dropped rapidly at sample locations to the south, towards Cypress Creek, and to the north. When efforts were made to define the extent of PCE to the east of the dry cleaner, one of the highest PCE concentrations was detected at the sampling location GP-17 (948 ppb), located near Skyland Boulevard, over 300 feet upgradient of the dry cleaner.

Probes GP-19 through GP-22 were advanced and sampled in January 2001 in an effort to further define the east and west extent of PCE in groundwater. The extent of PCE to the west was defined by shallow (24 foot) and deep (40 to 44 foot) samples collected from probes GP-21 and GP-22, located about 800 feet west of the dry cleaner (Figure 5). The GP-21 and GP-22 sample results indicated relatively low to nondetectable PCE concentrations. However, the groundwater sample collected at GP-19, located over 500 feet upgradient of the dry cleaner near Skyland Boulevard, contained a PCE concentration of 362 ppb.

The GP-17 and GP-19 sampling results appeared to indicate a high probability that an offsite source of PCE exists upgradient of the dry cleaner site. According to Mr. Ward McFarland, a textile plant was previously located at the current location of a Winn Dixie store on Andrew Mills Road, east of McFarland Mall. Textile plants often use PCE for cleaning soiled fabric. A sanitary sewer main extends from the area of the former textile plant along the north side of Skyland Boulevard to the site location. It was suspected that PCE could be moving along the sanitary sewer main location from offsite.

Probes GP-23 through GP-27 were advanced at locations upgradient of the subject site along the sewer main to verify the suspected offsite source (Figure 6). Elevated PCE concentrations were detected at sample locations GP-25 (52 ppb) and GP-26 (820 ppb), over 1,000 feet upgradient of the dry cleaner site.

To assess current groundwater conditions near the former dry cleaner, a groundwater sample was collected from existing monitoring well MW-7D on April 9, 2001. This well is approximately 50-feet deep and is present in the parking lot of the Northington Cleaners. The concentrations of PCE in groundwater samples collected from similar depths at the upgradient sample locations (GP-19, 362 ppb and GP-26, 820 ppb) were higher compared to the Northington Cleaners site (MW-7, 46 ppb). The sampling data indicates a source of PCE exists upgradient of the Northington Cleaners site and McFarland Mall.



## 5.2 Permanent Monitoring Well Installations

Based upon the Geoprobe sampling results, five shallow (about 50 feet) wells (MW-13, MW-14, MW-15, MW-16, and MW-17) and two deep (about 100 feet) monitoring wells (MW-12 and MW-18) were proposed at locations onsite and offsite within the Alabama Department of Transportation (ALDOT) right of way along McFarland and Skyland Boulevard. Permits were obtained from the ALDOT to access the right of way and install the wells. Bhate proposed and obtained approval from ADEM to use a truck mounted drill rig equipped with a ROTA-SONIC drill head to advance the deep borings and install monitoring wells. The well installations were completed the weeks of May 7 and May 14, 2001.

The ROTA-SONIC drilling process is described as follows: a 6-inch diameter sample barrel was driven in 10-foot intervals using vibration, rotation and minimal down-force to collect lithologic samples. Once driven to the selected depth, a 7-inch diameter override casing was advanced down over the sample barrel. The override casing prevented cross contamination and formation mixing. The sample barrel was then removed, leaving the override casing in place and the lithologic sample extruded. Once the sample was removed, the sample barrel was reinserted into the borehole and driven the next 10 foot interval followed by advancing the 7-inch diameter override casing. Once the borehole was completed, well construction took place within the override casing. During drilling, it was necessary to add water to the borehole to cool the bit head. Water was added from an the local potable water source through the interior of the override casing, discharged at the drilling bit and travel back up the inside of the override casing with minimal discharge at the ground surface. A sample of the water supply (CW-1) was collected and analyzed for VOCs. The water sample results are included in Table 4. The drilling water returns were captured in a large pan surrounding the borehole and were pumped into drums.

During drilling of well MW-12, a suspected confining layer of clay was encountered at a depth of 60 feet. With the 7-inch casing in place through the clay zone, an additional 8-inch diameter override casing was advanced to a depth just above the clay layer and was then pushed into the clay without vibration to seal off the upper groundwater zone. The 7-inch casing and core barrel were then advanced to the total depth with the 8-inch casing secured in place.

Once the drilling reached the target depth, the sample core barrel was removed and well casing and 10 feet of 0.010 slot well screen was placed into the 7-inch override casing. A 20/30-filter sand was placed in the override casing to gravity feed as the casing was vibrated and pulled up. The vibration of the override casing helped to prevent the sand from bridging and provided a tighter filter-pack. Sand was placed up to about two feet above the top of the well screen.



A minimum of two feet of bentonite seal was placed on top of the filter pack inside the override casing. The casing was then raised and vibrated to allow the bentonite seal to settle on top of the filter-pack. Hydration of the bentonite was not necessary since it was below the water table. Cement bentonite grout was then tremmied into the override casing. Once a column of grout was placed within the override casing, the casing was vibrated and raised. Through this action, a complete filling of the annular space was performed. This action also helped to seat the grout and insure contact between the borehole wall and the casing. Grouting continued until the surface was reached.

Soil samples were collected and described in the field by an environmental geologist/engineer. Soil samples were collected continuously from the soil above the bedrock, using a core barrel. Descriptions of the subsurface materials encountered and well construction details are provided in the boring logs found in Appendix A.

Each well surface was completed with a flush manhole labeled to indicate the presence of a monitoring well, embedded in a 2 ft x 2 ft x 4-inch thick concrete pad. All wells were secured with a watertight locking cap.

Following completion of the groundwater monitoring wells, each well was developed by removing approximately three to five well volumes of water, or purged until the wells are bailed dry. A Waterra pump was used to develop the deep wells and a 12-volt submersible pump was used to develop the shallow wells. Development continued until pH and specific conductivity of the purged water stabilized and the water was relatively clear of fine-grained sediment.

Soil sample cuttings were placed in 55-gallon drums and contained in a fenced enclosure behind the dry cleaner. Purge water was also collected and stored in 55-gallon capacity drums. All cuttings and purge/development water produced as a byproduct of drilling and sampling activities will undergo waste characterization in preparation for proper disposal.

### **5.3 Groundwater Sample Collection**

Groundwater samples were collected from the existing wells and new wells during May 25 to May 30, 2001. Well MW-8 was not sampled due to lack of adequate well recharge for groundwater sampling.

Groundwater samples were collected from each well with a dedicated disposable Teflon bailer. Prior to sample collection, each well was purged of three to five well volumes of groundwater until the field parameters of pH, temperature and specific conductivity had stabilized. The collected groundwater samples were then placed in clean, laboratory supplied sample bottles, immediately stored in an ice-packed cooler and shipped via overnight courier under chain-of-custody to the



Test America Laboratory in Nashville, Tennessee. They were analyzed for VOCs by EPA Method 8260.

#### **5.4 Groundwater Analytical Results**

Analytical results for groundwater samples collected from the new 2-inch diameter wells and the existing 0.75-inch wells analyzed by Test America are summarized in Table 4. Analytical results for groundwater samples indicate that PCE was detected at concentrations above the maximum contaminant level (MCL) of 5 ppb in most of the shallow depth (30 foot) and intermediate depth (50 foot) monitoring wells (Figure 7). PCE concentrations appear to have decreased in most of the wells closest to the dry cleaners compared to the 1997 sampling results. PCE concentrations increased in wells MW-9, MW-10, and MW-11 compared to the 1997 sampling results.

Degradation products of PCE including trichloroethene, 1,1-dichloroethene, and cis-1, 2-dichloroethene were also detected in groundwater samples collected from monitoring wells closest to the dry cleaner facility. None of the degradation products were detected at concentrations above the respective MCLs except for trichloroethene (TCE). TCE was detected above the MCL of 5 ppb in wells MW-3 (22.2 ppb), MW-4 (11 ppb), and MW-6 (7.2 ppb). Volatile Organic Compounds were not detected in the deep wells MW-12 and MW-18.

The permanent well sampling results were slightly higher than the Geoprobe testing results near monitoring well locations MW-13 through MW-16 located around the perimeter of the groundwater plume. The results of the testing of groundwater samples collected from the permanent wells appear to confirm the suspected presence of an offsite source of PCE (Figure 8). The vertical distribution of PCE in groundwater is depicted in cross sections found on Figures 9 and 10. Along Skyland Boulevard, PCE concentrations are highest at depths about 50 feet beneath the surface or about 30 to 35 feet beneath the water table surface (Figure 9). However, PCE does not appear to be present in the uppermost portion of the water table or in the lower portion of the Coker Aquifer. The GP-17, GP-19, and MW-17 sampling results indicate an upgradient offsite source of PCE. The vertical profile from the dry cleaner toward Skyland Boulevard (Figure 10) indicates the PCE concentrations found at GP-1/ GP-14 may be from the dry cleaner source but more likely are from the upgradient offsite source since PCE concentrations in MW-7 are currently only 5 ppb.

Laboratory analytical reports and chain-of-custody records for groundwater samples are included in Appendix D.



## **6.0 QUALITY ASSURANCE/QUALITY CONTROL**

Bhate maintained a stringent Quality Assurance/Quality Control (QA/QC) program for all activities, during data acquisition through report preparation.

### **6.1 Equipment Decontamination**

All drilling and sampling equipment decontamination was performed between individual sampling points to minimize potential cross-contamination. Sampling and DPT equipment was decontaminated between borings or wells within the field. The following standard decontamination procedure was conducted for all sampling equipment.

- A. Clean with tap water and lab grade soap (Liquinox) using a brush. Rinse with tap water.
- B. Triple rinse with distilled water.
- C. Rinse with analyte-free water and allow to air dry.

Decontamination of drilling equipment (i.e. drill stems, drill bits, other down-hole equipment) was conducted prior to drilling each monitoring well boring. The standard decontamination procedure included thorough cleaning with a steam cleaner.

### **6.2 Instrument Calibration**

Calibration of field instruments was performed on a daily basis. Records were kept in a calibration log indicating instrument model, date and time, standards calibration method, instrument response and verification of calibration. Field calibration and checks were recorded in the field notebook.

### **6.3 Sampling**

Equipment blanks and trip blanks were collected and analyzed as part of the QA/QC program. Chain-of-custody of the samples was documented from sampling through delivery to the laboratory



## 7.0 AQUIFER CHARACTERIZATION

### 7.1 Slug Test Hydraulic Conductivity

The hydraulic conductivity and groundwater flow gradient were estimated to evaluate aquifer characteristics at the subject site. An aquifer slug test was performed in monitoring wells MW-13, MW-17 and deep well MW-12 on May 21, 2001. Slug tests are performed in groundwater monitoring wells to provide data used for the estimation of hydraulic conductivity within a few feet of the well. In a slug test, the groundwater level is raised or lowered and the water levels in the well are measured for a period of time following the initial change. The procedure involves the following:

1. The depth to groundwater in the monitoring well is recorded.
2. A section of solid PVC rod is then lowered into the well causing the water level to rise. A water level meter is used to measure depth to water at specific time intervals, until the water level reaches the original static level.
3. The PVC pipe is removed from the well, causing the water level to fall. Subsequent rising depths to water area then recorded until the water level once again reaches the original static level.

The data obtained in the procedure outlined above were evaluated using methods described by Bouwer and Rice for estimation of hydraulic conductivity,  $k$ . This was accomplished by plotting change in head ratios versus time on a semilogarithmic graph from which a time lag ( $T_0$ ) is determined. The results, including the graphs, are included in Appendix B.

Using gradient values ( $dh/dl$ ), the hydraulic conductivity ( $k$ ) and effective porosity ( $n$ ), Darcy's Law can be used to estimate an average linear velocity. The average gradient across the area of study was determined to be 0.007 ft/ft based on the water table elevation difference and linear distance between wells MW-13 and MW-17. The porosity of the soils estimated for clean fine to medium grain sand is approximately 30 %. Using these values and a  $k$  of 8.201 ft/day (MW-17), the potential average linear velocity was estimated to be 69.8 ft/year.

This rate provides an upper estimate of the possible distance traveled by a release. It should not be interpreted as an actual flow rate of any plume contaminants, which might be present.



## 8.0 CONCLUSIONS AND RECOMMENDATIONS

Bhate developed the following conclusions based upon the findings of the assessment activities conducted at the Northington Cleaners site:

- The analytical data indicates that the soils have been affected by a chlorinated solvent release. PCE was detected in soil samples collected beneath the floor of the dry cleaner at concentrations up to 1,540 pbb. Although ADEM has not established soil cleanup standards for chlorinated solvents in soil at dry cleaner sites, EPA Region III has developed risk based soil-screening levels. The EPA Region III Risk Based Concentration value for PCE is 110,000 ppb at industrial sites and 1,200 for residential sites. None of the remaining chlorinated solvents were detected at concentrations exceeding the respective risk based concentration values.
- Groundwater analytical data indicate that the groundwater beneath the site has been impacted by a release of chlorinated solvents. The lateral and vertical extent of PCE in groundwater that is believed to have originated at the dry cleaner site is relatively well defined. Elevated PCE concentrations were also identified that are migrating onto the site from an upgradient offsite source. The upgradient offsite PCE concentrations appear to be as high or higher than the onsite PCE concentrations detected in wells located close to the dry cleaner. The off site source may be a former textile plant located about 1,700 feet east of the subject site.
- Groundwater appears to exist under unconfined conditions at the site. According to groundwater elevation data measured on May 25, 2001, and our interpretation of the mapped data, groundwater beneath the site appears to flow generally towards the west.
- Literature review and a walking/driving survey of the area did not uncover any evidence of water supply wells within a two mile radius of the site.
- Aquifer test results indicate the fine to medium grain clean sands are highly transmissive. The estimated linear velocity of groundwater movement is about 69.8 feet per year.

Based upon our evaluation of the site and the guidelines for investigation, Bhate recommends that a quarterly sampling program be implemented for a period of one year. It is recommended that wells MW-2, MW-9, and MW-11 through MW-18 be included in the sampling program. Approval to use low flow groundwater sampling techniques should be obtained from ADEM. After completion of the monitoring, a risk assessment should be conducted.



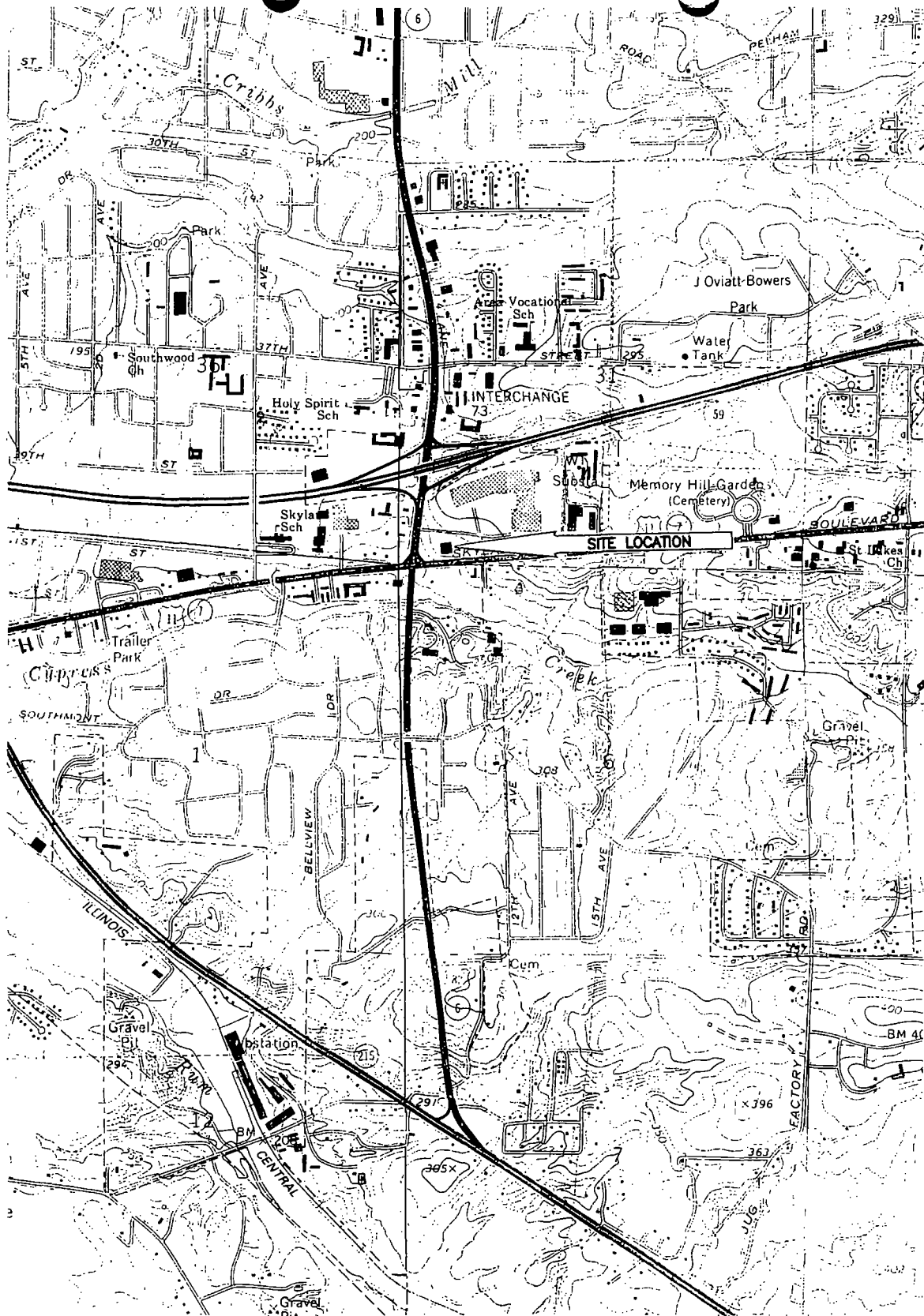
## 9.0 CLOSING REMARKS

This Groundwater Quality Assessment Report has been prepared for Northington Cleaners for specific application to the subject site. The information related to a previous investigation presented in this report is based on information obtained by Bhate during the Initial Site Investigation and during this investigation.

Future environmental conditions at the subject site can change subject to future changes in operations and land usage. The opinions and findings of this report represent those conditions apparent at the time and dates the work was performed. New regulations, changes in surrounding land use, geologic conditions and other factors may also result in changed conditions in the future.

The work described in this report has been developed in accordance with the current ADEM regulations and industry practice. No other warranty is implied or expressed.

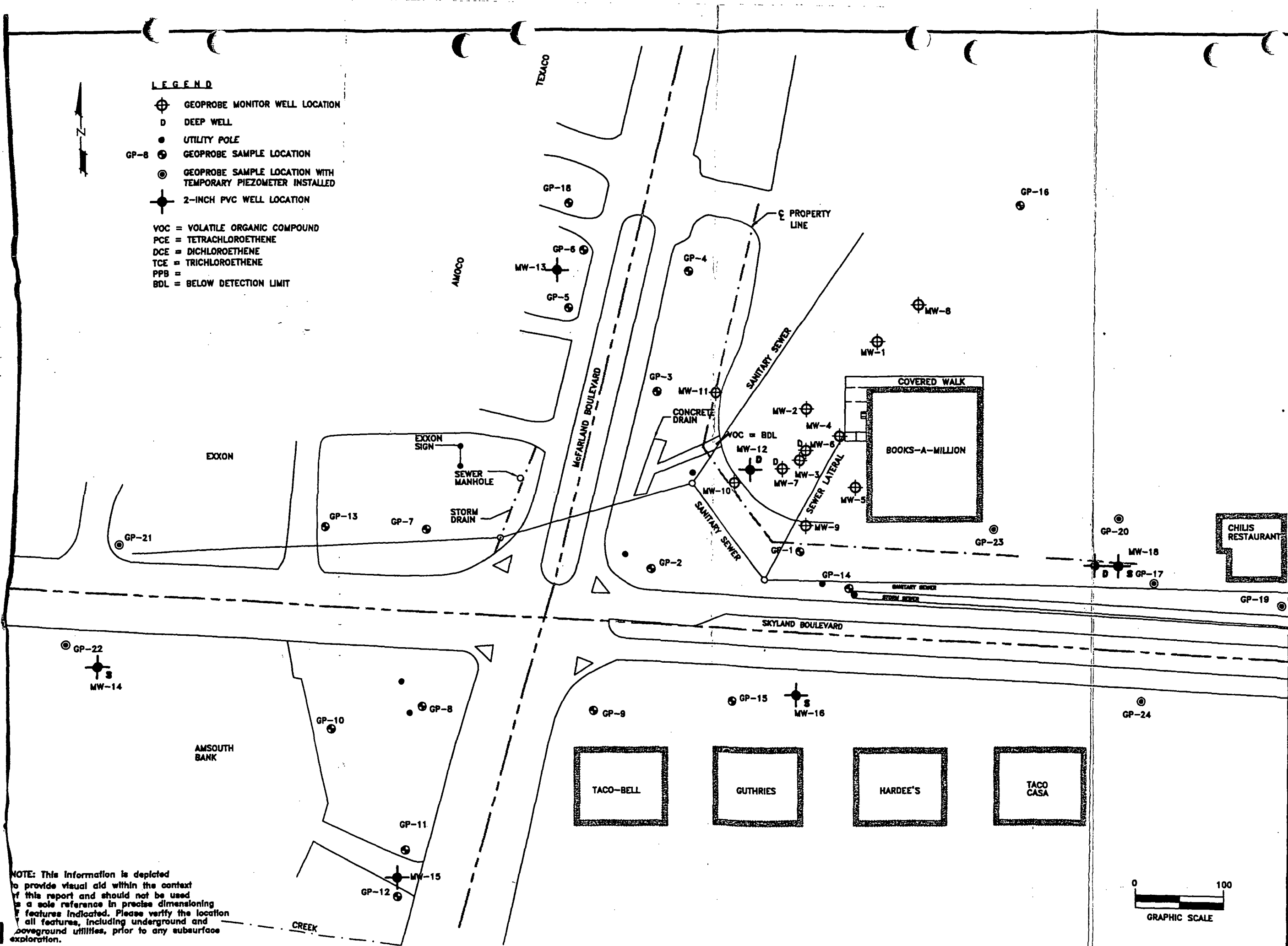




# LEGEND

- ⊕ GEOPROBE MONITOR WELL LOCATION
- D DEEP WELL
- UTILITY POLE
- GP-8 ⊕ GEOPROBE SAMPLE LOCATION
- ⊙ GEOPROBE SAMPLE LOCATION WITH TEMPORARY PIEZOMETER INSTALLED
- ⊕ 2-INCH PVC WELL LOCATION

VOC = VOLATILE ORGANIC COMPOUND  
PCE = TETRACHLOROETHENE  
DCE = DICHLOROETHENE  
TCE = TRICHLOROETHENE  
PPB =  
BDL = BELOW DETECTION LIMIT



Northington Dry Cleaners  
McFarland Mall  
Tuscaloosa, Alabama

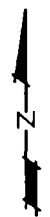
Figure 2

## SITE MAP

PROJECT NO.	9010095
SCALE	Approx. 1"=100'
DATE	12/19/00
DRAWN BY:	-
DRAWING NO:	feb01fig2rev

**B-E**  
Bhate Environmental, Inc.  
Environmental Engineers & Scientists





NOTE: BACKGROUND SOIL SAMPLE  
COLLECTED FROM MEDIAN NOT  
SHOWN ON FIGURE

TO McFARLAND BOULEVARD

ASPHALT  
LOT

8-1

SOIL	
3'-5'	ND
8'-10'	ND
13'-15'	ND
GROUNDWATER=	
860PPB	

SB-11

SOIL	
3'-5'	11.5ppb
8'-10'	1.8ppb
13'-15'	1.8ppb

SB-06/TMW-3

SOIL	
3'-5'	18.4ppb
8'-10'	ND
13'-15'	ND
GROUNDWATER=	
69PPB	

SB-09

SOIL	
3'-5'	11.2ppb
8'-10'	2.2ppb
13'-15'	0.5ppb

SB-05/TMW-2

SOIL	
3'-5'	1312ppb
8'-10'	5ppb
13'-15'	5ppb
GROUNDWATER=	
60PPB	

SB-10

SOIL	
3'-5'	11.7ppb
8'-10'	1.8ppb
13'-15'	1.6ppb

SB-04/TMW-1

SOIL	
3'-5'	ND
8'-10'	ND
13'-15'	ND
GROUNDWATER=	
52PPB	

SB-01

SOIL	
1'-3'	34ppb
6'-8'	62ppb

SB-02

SOIL	
1'-3'	52ppb
6'-8'	12ppb

SB-03

SOIL	
1'-3'	1340ppb
6'-8'	10ppb

SB-07/TMW-4

SOIL	
3'-5'	14ppb
8'-10'	7.5ppb
13'-15'	ND
GROUNDWATER=	
83PPB	

SB-08

SOIL	
3'-5'	14.6ppb
8'-10'	10.0ppb
13'-15'	2.2ppb
23'-25'	1.9ppb

CUSTOMER  
SERVICE AREA

FORMER  
CLEANING  
EQUIPMENT  
LOCATION

DRAIN 1' DEEP  
DRAIN 1' WIDE

STORAGE

STORAGE

BOOKS-A-MILLION

LEGEND

- -INDICATES SOIL SAMPLING LOCATION
- PPB

NOTE: This information is depicted  
to provide visual aid within the context  
of this report and should not be used  
as a sole reference in precise dimensioning  
of features indicated.

NOTE: SAMPLE 8-1 WAS CONDUCTED  
ON MAY 2, 2000

GRASS

SKYLAND BOULEVARD (~75')

SAMPLING LOCATIONS  
WITH PCE CONCENTRATION  
(JULY, 1997)

Northington Dry Cleaners  
McFarland Mall  
Tuscaloosa, Alabama

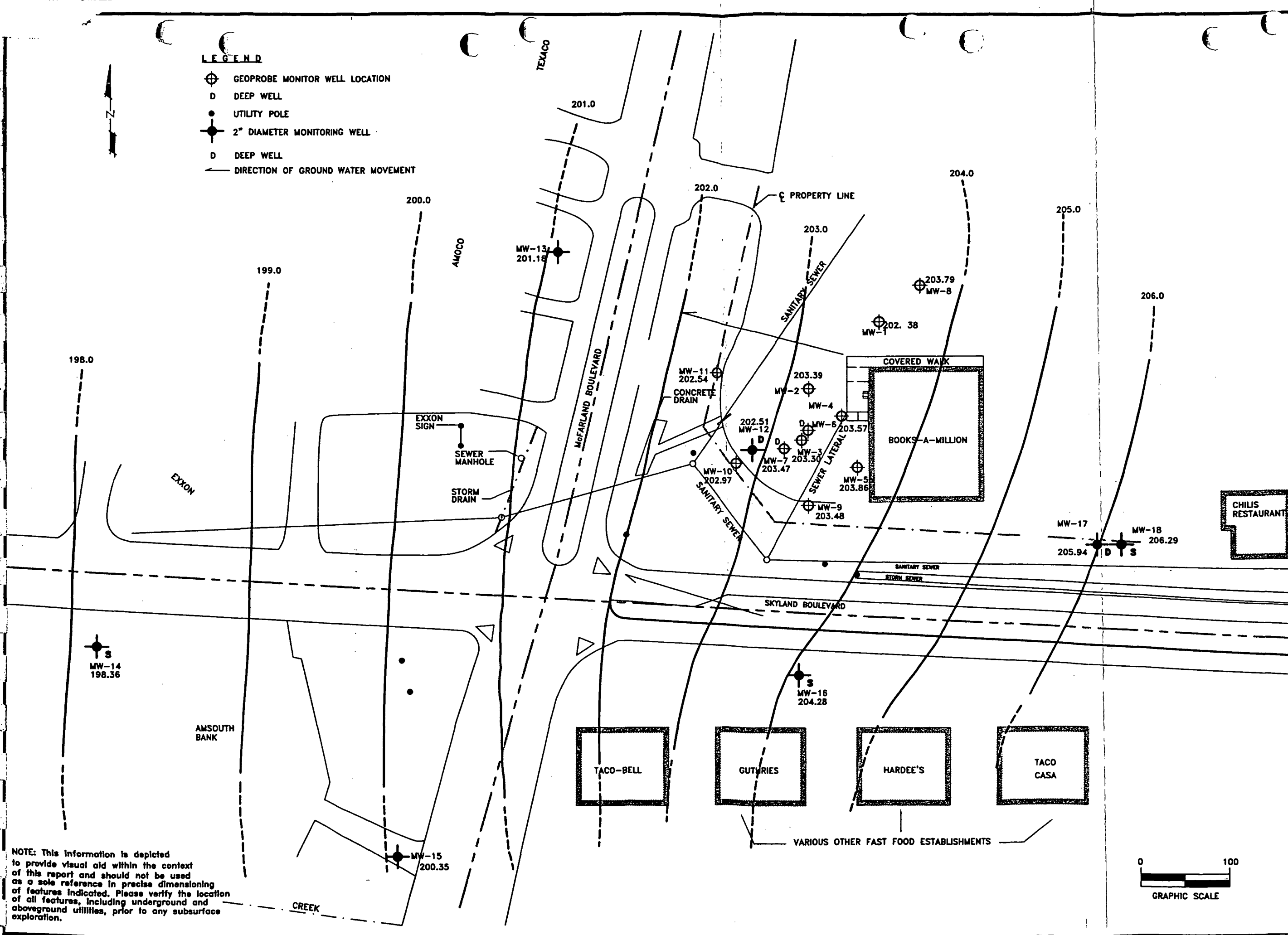
Figure 3

PROJECT NO.	SCALE	DATE	DRAWN BY:
9010095	Approx. 1"=20'	8/27/97	-
DRAWING NO:			F-3-H

**B-E-T**  
Bhate Environmental, Inc.  
Environmental Engineers & Scientists

# LEGEND

- ⊕ GEOPROBE MONITOR WELL LOCATION
- D DEEP WELL
- UTILITY POLE
- ⊕ 2" DIAMETER MONITORING WELL
- D DEEP WELL
- DIRECTION OF GROUND WATER MOVEMENT



Northington Dry Cleaners  
McFarland Mall  
Tuscaloosa, Alabama

Figure 4

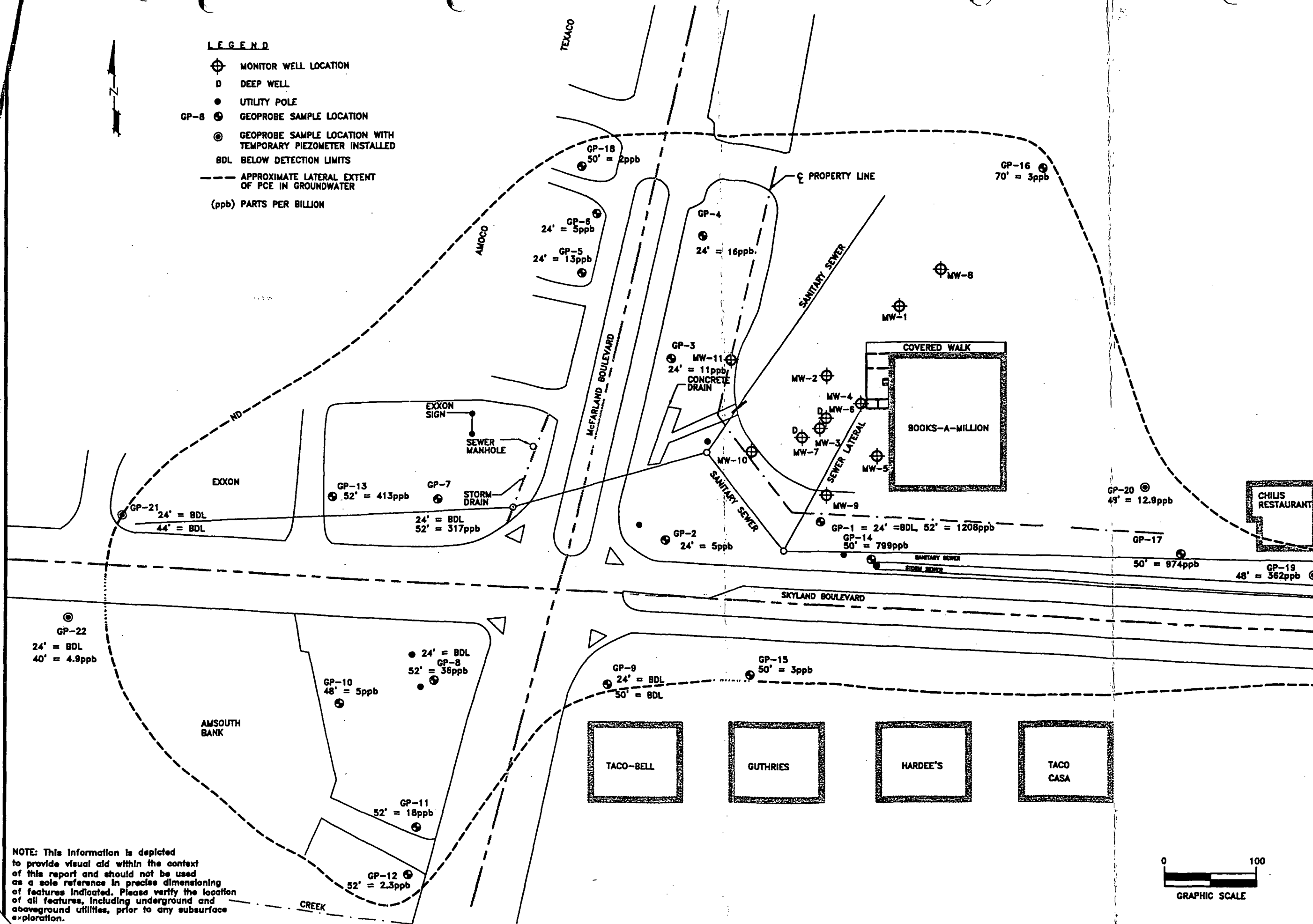
## POTENTIOMETRIC SURFACE MAP MAY 25, 2001

PROJECT NO.	SCALE	DATE	DRAWN BY:	DRAWING NO:
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**B-E**  
Bhate Environmental, Inc.  
Environmental Engineers & Scientists

# LEGEND

- ⊕ MONITOR WELL LOCATION
- D DEEP WELL
- UTILITY POLE
- GP-8 ⊕ GEOPROBE SAMPLE LOCATION
- ⊙ GEOPROBE SAMPLE LOCATION WITH TEMPORARY PIEZOMETER INSTALLED
- BDL BELOW DETECTION LIMITS
- - - APPROXIMATE LATERAL EXTENT OF PCE IN GROUNDWATER
- (ppb) PARTS PER BILLION



NOTE: This information is depicted to provide visual aid within the context of this report and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features, including underground and aboveground utilities, prior to any subsurface exploration.



## GEOPROBE GROUNDWATER ANALYTICAL RESULTS PCE (12/00 & 1/01)

Northington Dry Cleaners  
McFarland Mall  
Tuscaloosa, Alabama

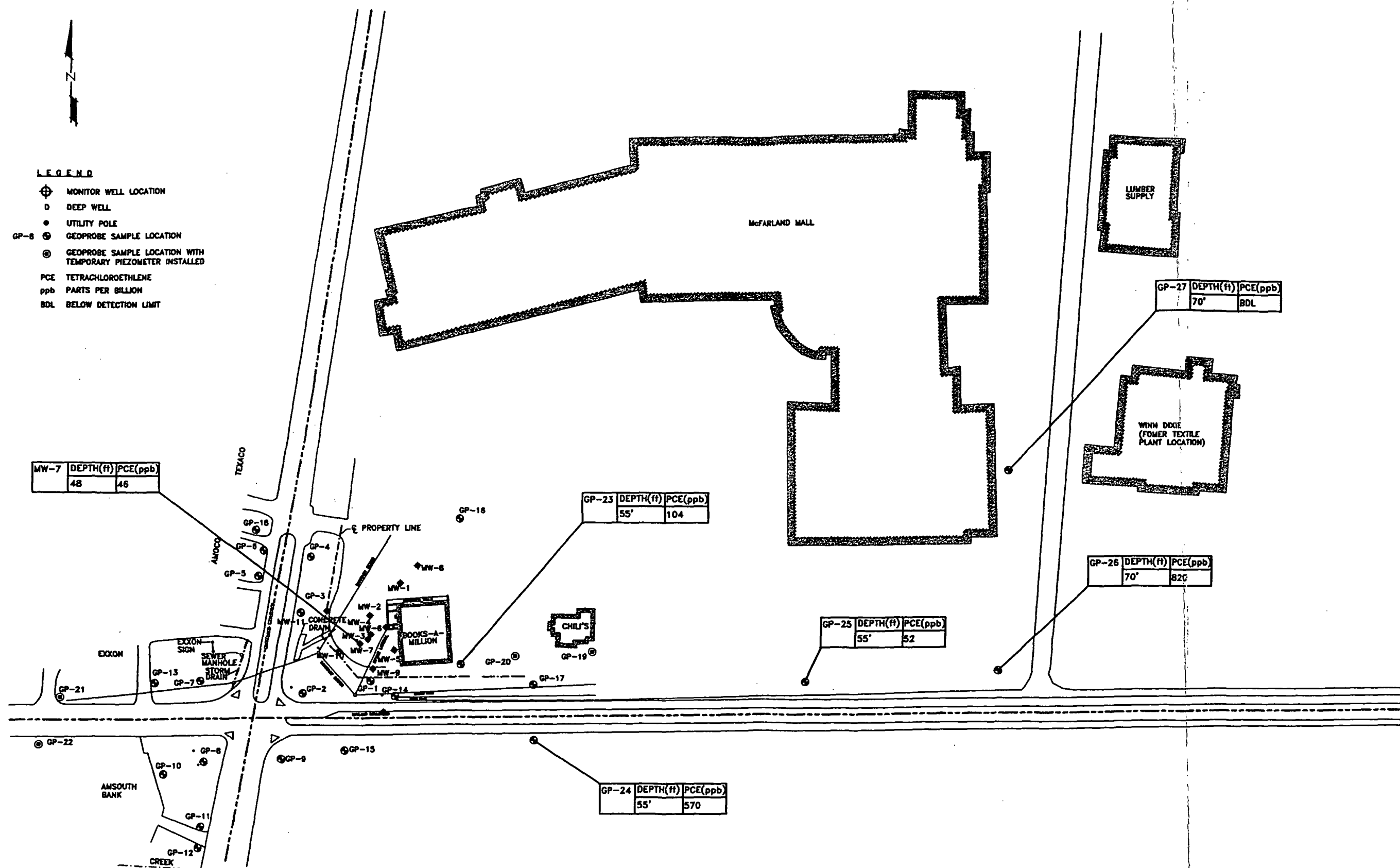
Figure 5

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DATE	12/19/00
DRAWN BY:	feb01fig3rev

**B-E-E**  
Bhate Environmental, Inc.  
Environmental Engineers & Scientists

# LEGEND

- ⊕ MONITOR WELL LOCATION
- D DEEP WELL
- UTILITY POLE
- GP-8 GEOPROBE SAMPLE LOCATION
- ⊙ GEOPROBE SAMPLE LOCATION WITH TEMPORARY PIEZOMETER INSTALLED
- PCE TETRACHLOROETHYLENE
- ppb PARTS PER BILLION
- BDL BELOW DETECTION LIMIT



NOTE: This information is depicted to provide visual aid within the context of this report and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features, including underground and above-ground utilities, prior to any subsurface exploration.

## GEOPROBE GROUNDWATER ANALYTICAL ANALYTICAL RESULTS - PCE (4/5/01)

PROJECT NO.	SCALE	DATE	DRAWN BY:
3970097	Approx. 1"=250'	4/24/01	-
			DRAWING NO:
			MAR01REV

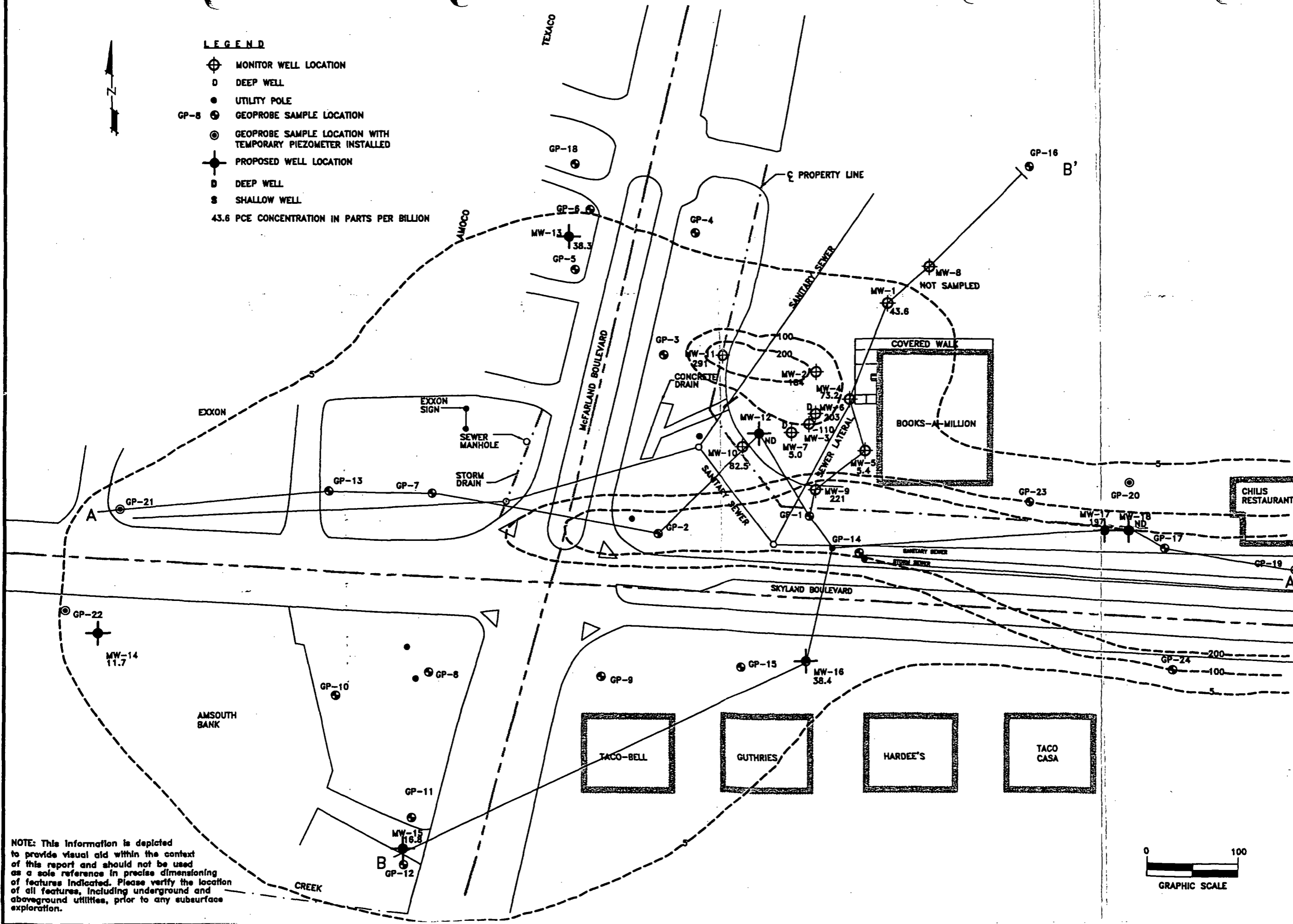
**B3E-I**  
Bhate Environmental, Inc.  
Environmental Engineers & Scientists

Northington Dry Cleaners  
McFarland Mall  
Tuscaloosa, Alabama



# LEGEND

- ⊕ MONITOR WELL LOCATION
- D DEEP WELL
- UTILITY POLE
- GP-5 ⊕ GEOPROBE SAMPLE LOCATION
- ⊙ GEOPROBE SAMPLE LOCATION WITH TEMPORARY PIEZOMETER INSTALLED
- ⊕ PROPOSED WELL LOCATION
- D DEEP WELL
- S SHALLOW WELL
- 43.6 PCE CONCENTRATION IN PARTS PER BILLION



NOTE: This information is depicted to provide visual aid within the context of this report and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features, including underground and aboveground utilities, prior to any subsurface exploration.



Northington Dry Cleaners  
McFarland Mall  
Tuscaloosa, Alabama

Figure 8

## PCE ISOCONCENTRATION MAP

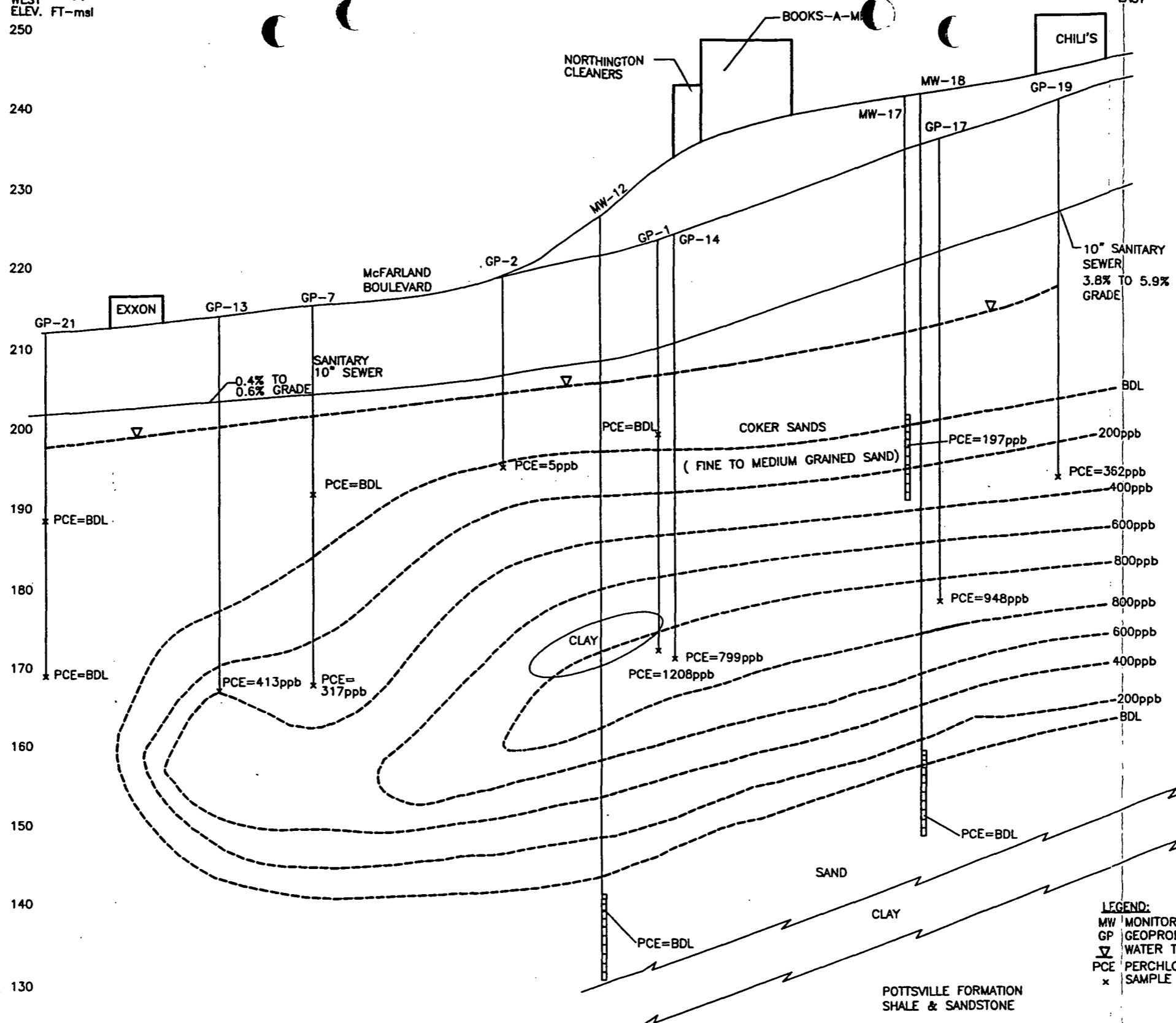
5/29/01

PROJECT NO.	SCALE	DATE	DRAWN BY:	DRAWING NO:
9010095	Approx. 1"=100'	12/19/00		feb01fig8rev

**B3E**  
Bhate Environmental, Inc.  
Environmental Engineers & Scientists

WEST  
ELEV. FT-msl  
250

A' EAST



NOTE: This information is depicted to provide visual aid within the context of this report and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features, including underground and aboveground utilities, prior to any subsurface exploration.

LEGEND:  
 MW MONITORING WELL LOCATION  
 GP GEOPROBE SAMPLE LOCATION  
 ▽ WATER TABLE  
 PCE PERCHLOROETHYLENE IN PARTS PER BILLION  
 x SAMPLE DEPTH

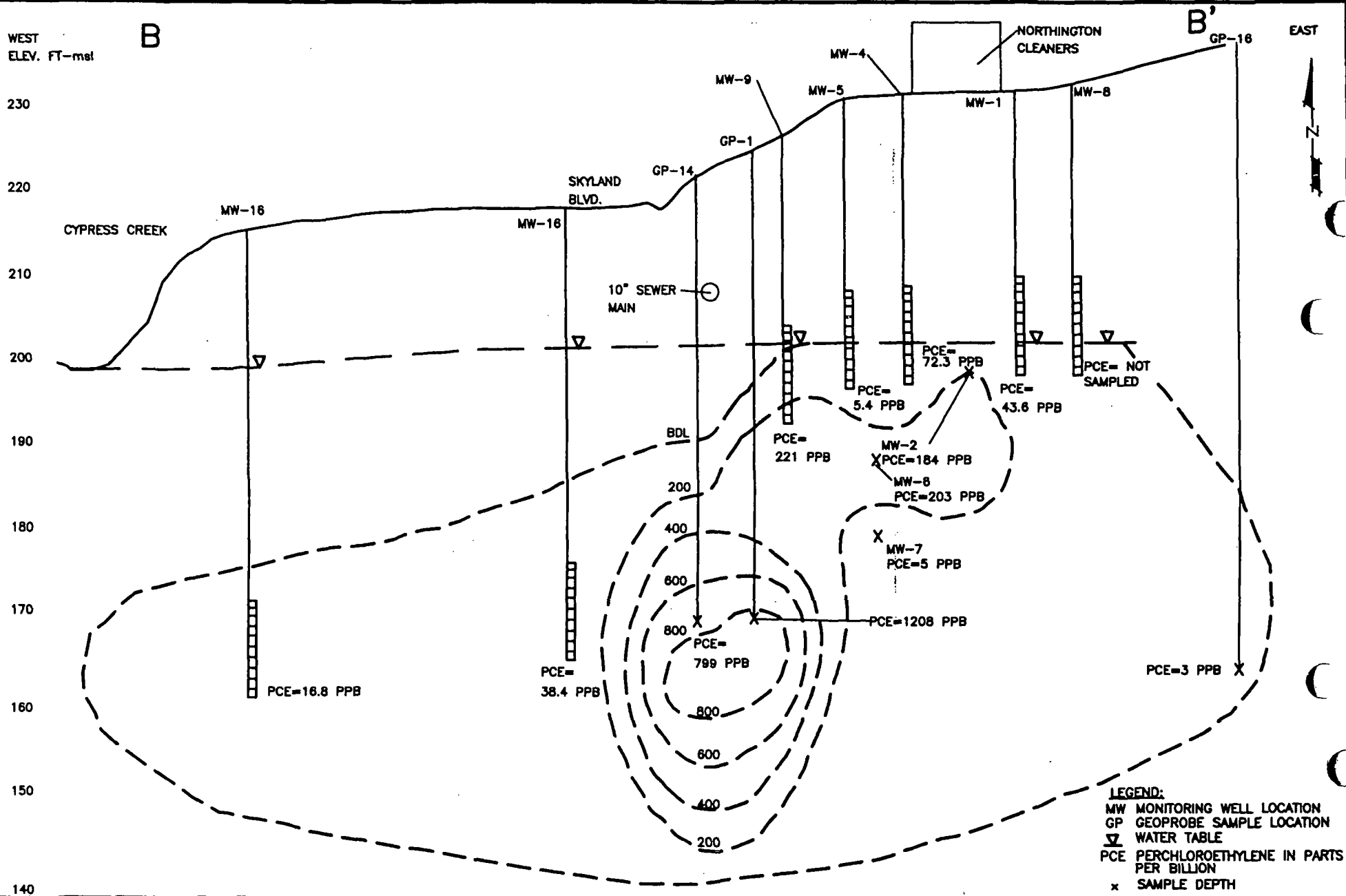
**BET**  
 Bhate Environmental, Inc.  
 Environmental Engineers & Scientists

CROSS SECTION A - A' ALONG  
 SKYLAND BOULEVARD

PROJECT NO.	SCALE	DATE	DRAWN BY:
9010095	H:1"=100' V:1"=15'	3/15/01	-
			DRAWING NO: CROSS1

NORTHINGTON DRY CLEANERS  
 MCFARLAND MALL  
 TUSCALOOSA, ALABAMA

Figure 9



**BEI**  
Bhate Environmental, Inc.  
Environmental Engineers & Scientists

CROSS SECTION B - B'

PROJECT NO.	SCALE	DATE	DRAWN BY:
9010095	H:1"=100' V:1"=15'	6/26/01	-
			DRAWING NO: FIG10

NORTHINGTON DRY CLEANERS  
MCFARLAND MALL  
TUSCALOOSA, ALABAMA

FIGURE 10

**TABLE 1**  
**Groundwater Elevation and Well Construction Data**  
**Northington Cleaners**  
**Tuscaloosa, Alabama**  
**BEA Project No. 9010095**

<b>Well Location</b>	<b>Date</b>	<b>Total Well Depth (ft. bgs)</b>	<b>Depth to Water (ft. bgs)</b>	<b>Relative Top of Casing Elevation (ft. AMSL)</b>	<b>Relative Water Elevation (ft. AMSL)</b>
MW-1	5/29/01	31.50	26.7	229.08	202.38
MW-2	5/29/01	33.20	23.75	227.14	203.39
MW-3	5/29/01	27.00	23.95	227.25	203.30
MW-4	5/29/01	31.90	25.7	229.27	203.57
MW-5	5/29/01	32.00	25.37	229.23	203.86
MW-6	5/29/01	39.70	24.17	227.52	203.35
MW-7	5/29/01	48.30	23.27	226.74	203.47
MW-8	5/29/01	32.80	27.64	231.43	203.79
MW-9	5/29/01	28.60	21.74	225.22	203.48
MW-10	5/29/01	32.00	16.83	219.80	202.97
MW-11	5/29/01	31.30	19.57	222.11	202.54
MW-12	5/29/01	93.45	20.67	223.18	202.51
MW-13	5/29/01	50.40	14.76	215.92	201.16
MW-14	5/29/01	50.10	11.2	209.56	198.36
MW-15	5/29/01	49.70	12.17	212.52	200.35
MW-16	5/29/01	50.50	13.4	217.68	204.28
MW-17	5/29/01	49.10	23.59	229.53	205.94
MW-18	5/29/01	100.30	23.43	229.72	206.29

**Notes:**

1. A temporary benchmark of 230.0 feet above mean sea level (AMSL) was assumed in calculating relative well and groundwater elevations.
2. bgs, below ground surface.



**TABLE 2**  
**Laboratory Analytical Results for Soil Samples**  
**Northington Cleaners**  
**Tuscaloosa, Alabama**  
**BEA Project No. 9010095**

Sample Location	Sample Date	Sample Depth Interval (ft. bgs)	Analytical Results			
			PCE (ppb)	TCE (ppb)	1,1-DCE (ppb)	Cis 1,2-DCE (ppb)
SB-01	7/25/97	1-3	34.0	36.0	1250.0	48.0
		6-8	62.0	72.0	BDL	158.0
SB-02	7/25/97	1-3	52.0	33.0	BDL	175.0
		6-8	12.0	4.0	BDL	17.0
SB-03	7/25/97	1-3	1540.0	198.0	BDL	34.0
		6-8	10.0	BDL	BDL	BDL
SB-04	8/12/97	3-5	BDL	BDL	BDL	BDL
		23-25	BDL	BDL	BDL	BDL
SB-05	8/12/97	3-5	312.0	61.0	BDL	BDL
		13-15	5.0	BDL	1.0	1.4
SB-06	8/12/97	3-5	6.4	9.2	2.4	17.2
		13-15	BDL	BDL	5.0	1.6
SB-07	8/12/97	3-5	14.0	2.5	1.0	14.1
		8-10	7.5	BDL	BDL	4.3
		13-15	BDL	BDL	BDL	2.3
SB-08	10/15/97	3-5	14.6	NA	NA	NA
		8-10	10/BDL	BDL	BDL	BDL
		13-15	2.2	NA	NA	NA
		23-25	1.9	NA	NA	NA
SB-09	10/15/97	3-5	1.2	NA	NA	NA
		8-10	2.2/BDL	BDL	BDL	BDL
		13-15	0.5	NA	NA	NA
SB-10	10/15/97	3-5	1.7	NA	NA	NA
		8-10	1.6/BDL	BDL	BDL	BDL
		13-15	1.6	NA	NA	NA
SB-11	10/15/97	3-5	1.5	NA	NA	NA
		8-10	1.8/4	BDL	BDL	BDL
		13-15	1.8	NA	NA	NA
B-11	5/2/00	32-36'	BDL	BDL	BDL	BDL
		40-44'	BDL	BDL	BDL	BDL
EPA Region III RBC for Industrial Sites			110,000	520,000	9,500	20,000,000
1. BDL, below analytical method detection limit. NA, no laboratory analysis performed on sample. Bgs, below ground surface.						
2. SB-8 to SB-11 samples were analyzed by a Photovac 10S50 field GC for PCE only. The 8-10 ft. interval samples were analyzed for VOCs by Specialized Assays.						
3. VOCs were analyzed by U.S. EPA Method 8260 or 8021.						
4. PCE=tetrachloroethene, TCE=trichloroethene, DCE=dichloroethene						



**TABLE 3**  
**Analytical Results for Groundwater Samples - Geoprobe**  
**Northington Cleaners**  
**Tuscaloosa, Alabama**  
**BEA Project No. 9010095**

Sample Location	Sample Date	Sample Depth (ft)	Tetrachloroethene (ppb)
TMW-1	7/25/97	30	52
TMW-2	7/25/97	30	60
TMW-3	7/25/97	30	69
TMW-4	7/25/97	30	83
B-1	5/2/00	75	860
GP-1	12/11/00	24	BDL
	12/13/00	52	1208.0
GP-2	12/11/00	24	5.0
GP-3	12/11/00	24	11.0
GP-4	12/12/00	24	16.0
GP-5	12/12/00	24	13.0
GP-6	12/12/00	24	5.0
GP-7	12/12/00	24	BDL
	12/14/00	52	317.0
GP-8	12/12/00	24	BDL
		52	30.0
GP-9	12/13/00	24	BDL
		52	BDL
GP-10	12/14/00	48	5.0
GP-11	12/14/00	52	18.0
GP-12	12/14/00	52	3.0
GP-13	12/15/00	52	413.0
GP-14	12/15/00	50	799.0
GP-15	12/15/00	50	3.0
GP-16	12/15/00	70	3.0
GP-17	12/15/00	60	948.0
GP-18	12/15/00	50	2.0
GP-19	1/24/01	48	382.0
GP-20	1/24/01	48	12.9
GP-21	1/25/01	24	BDL
		44	BDL
GP-22	1/25/01	24	BDL
		40	4.9
GP-23	4/5/01	55	104.0
GP-24	4/5/01	55	570.0
GP-25	4/4/01	55	52.0
GP-26	4/4/01	70	820.0
GP-27	4/4/01	70	BDL
Rinsate	12/12/00		BDL
Rinsate	12/14/00		BDL
Corrective Action Level			5

**Notes:**

- 1 BDL = Below Method Detection Limit, ppb = parts per billion
2. Bold indicates concentrations exceeding regulatory corrective action levels.



**TABLE 4**  
**Analytical Results for Groundwater Samples - Monitoring Wells**  
**Northington Cleaners**  
**Tuscaloosa, Alabama**  
**BEA Project No. 9010095**

Sample Location	Sample Date	Volatile Organic Compounds (ppb)					
		Chloroform	Bromodichloromethane	PCE	TCE	1,1-DCE	Cis 1,2-DCE
MW-1	10/30/97	BDL	BDL	89.0	BDL	BDL	BDL
	5/30/01	BDL	BDL	43.6	BDL	BDL	BDL
MW-2	10/30/97	BDL	BDL	180.0	4.0	BDL	8.0
	5/29/01	13.5	BDL	184.0	3.1	BDL	5.8
MW-3	10/30/97	7.0	BDL	163.0	21.0	BDL	64.0
	5/29/01	17.6	BDL	110.0	22.2	BDL	69.4
MW-4	10/30/97	1.0	BDL	347.0	32.0	BDL	136.0
	5/29/01	12.5	BDL	73.2	11.0	BDL	19.2
MW-5	10/30/97	16.0	BDL	60.0	9.0	BDL	16.0
	5/29/01	25.2	BDL	5.4	BDL	BDL	BDL
MW-6	10/30/97	1.0	BDL	348.0	BDL	BDL	2.0
	5/29/01	BDL	BDL	203.0	7.2	BDL	53.2
MW-7	11/14/97	BDL	BDL	610.0	BDL	BDL	1.0
	5/30/01	BDL	BDL	5.0	BDL	BDL	8.1
MW-8	11/14/97	BDL	BDL	90.0	BDL	BDL	BDL
	5/30/01	NS	NS	NS	NS	NS	NS
MW-9	11/14/97	BDL	BDL	23.0	BDL	BDL	BDL
	5/30/01	BDL	BDL	221.0	BDL	BDL	BDL
MW-10	11/14/97	2.0	BDL	3.0	BDL	BDL	BDL
	5/29/01	BDL	BDL	82.5	BDL	BDL	BDL
MW-11	11/14/97	BDL	BDL	150.0	6.0	15.0	BDL
	5/30/01	BDL	BDL	291.0	BDL	BDL	BDL
MW-12	5/25/01	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	5/25/01	BDL	BDL	38.3	BDL	BDL	BDL
MW-14	5/25/01	9.8	BDL	11.7	BDL	BDL	BDL
MW-15	5/25/01	3.9	BDL	16.8	BDL	BDL	BDL
MW-16	5/25/01	3.5	BDL	38.4	BDL	BDL	BDL
MW-17	5/25/01	64.2	4.3	197.0	BDL	BDL	BDL
MW-18	5/25/01	BDL	BDL	BDL	BDL	BDL	BDL
CW-1	5/21/01	37.9	6.6	BDL	BDL	BDL	BDL
Corrective Action Level		80*	80*	5	5	7	70
Notes:							
* = Total trihalomethane limit is 80 ppb.							
1. VOCs analyzed by U.S. EPA Method 8260							
2. PCE = tetrachloroethene, DCE = dichloroethene, TCE = trichloroethene							
3 BDL = Below Method Detection Limit, ppb = parts per billion							
4. Bold indicates concentrations exceeding regulatory corrective action levels.							



## Boring ID: B-1

Project Name: Northington Cleaners  
Project Location: McFarland Mall

Drilling Date: 2/17/00  
Drilling Method: Geoprobe

Project Number: 3970097  
Client Name: McFarland Real Estate

Sampling Method: Macrocore  
Engineer/Geologist: Kogut

Soil Description	Symbol	Depth (ft)	Sample Location	Comments
Ground Surface		0		
		1		
		2		
		3		
		4		
		5		
		6	1	Well sorted, tan sand
		7		
		8		
		9		
		10		
		11	2	Clean sand
		12		
		13		
		14		
		15		
		16	3	Clean sand
		17		
		18		
		19		
		20		
		21	4	Clean sand
		22		
		23		
		24		
		25		
		26	5	Clean Sand (wet) First sign of watertable
		27		
		28		
		29		
		30		
		31	6	Clean sand
		32		
		33		
		34		
		35		
		36	7	Clean sand
		37		
		38		
		39		
		40		
		41	8	Clean sand
		42		
		43		
		44		
		45		
		46	9	Clean sand, slight variation in color
		47		
		48		
		49		
		50		

**SAND**  
tan, well sorted, clean, fine to medium  
grained, quartz

ND = analyte not detected  
mg/kg = milligrams per kilogram (=ppm)  
ppm = parts per million  
bgs = below ground surface



1608 13th Avenue S, Suite 300  
Birmingham, Alabama 35205


## Boring ID: B-1

Project Name: Northington Cleaners  
Project Location: McFarland Mall

Drilling Date: 2/17/00  
Drilling Method: Geoprobe

Project Number: 3970097  
Client Name: McFarland Real Estate

Sampling Method: Macrocore  
Engineer/Geologist: Kogut

Soil Description	Symbol	Depth (ft)	Sample Location	Comments
		51	10	Clean sand
		52		
		53		
		54		
		55		
		56	11	Clean sand
		57		
		58		
		59		
		60		
		61	12	Clean sand
		62		
		63		
		64		
		65		
		66	13	Clean sand
		67		
		68		
		69		
		70		
		71	14	Clean sand
		72		
		73		
		74		
End of Boring Log		75		Grab water sample
		76	15	830 ppb Perchloroethylene
		77		
		78		
		79		
		80		
		81		
		82		
		83		
		84		
		85		
		86		
		87		
		88		
		89		
		90		
		91		
		92		
		93		
		94		
		95		
		96		
		97		
		98		
		99		
		100		

ND = analyte not detected  
mg/kg = milligrams per kilogram (=ppm)  
ppm = parts per million.  
bgs = below ground surface



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Birmingham, Alabama 35205

# Boring/Monitoring Well Log: MW-12

Page 1 of 6

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 08 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** E. Beers/M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
0		Ground Surface					
1		Orange-brown to tan fine, silty, micaceous sand with sub-angular to sub-rounded gravel 0.3 - 4cm in diameter					Flush mount well
2							
3							
4							
5							
6							
7							9-inch diameter borehole
8							
9							
10							
11							
12							
13							
14							2-inch, schedule 40 PVC riser
15							
16							
17							
18							
19							
20							

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# Boring/Monitoring Well Log: MW-12

Page 2 of 6

Project: Northington Cleaners

Client: McFarland Mall Limited

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 08 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: E. Beers/M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
						Bhate Environmental 1608 13th Avenue South, Suite 300 Birmingham, Alabama 35205	

Portland cement grout with 10% powdered bentonite from 0.5' bgs to 77.5' bgs

# Boring/Monitoring Well Log: MW-12

Page 3 of 6

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 08 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** E. Beers/M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53		Dk brown to tan bedded, slightly silty, micaceous clay					
54							
55		Orange-brown to tan fine, silty, micaceous sand with sub-angular to sub-rounded gravel 0.3 - 4cm in diameter					
56							
57							
58							
59							
60							
						<b>Bhate Environmental</b> 1608 13th Avenue South, Suite 300 Birmingham, Alabama 35205	

# Boring/Monitoring Well Log: MW-12

Page 4 of 6

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 08 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** E. Beers/M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
61		Grey to lt olive, v dense, clean clay					
62							
63							
64							
65		Orange-brown to tan fine, silty, micaceous sand with sub-angular to sub-rounded gravel 0.3 - 4cm in diameter					
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							

3/8-inch Holeplug bentonite seal from 77.5'bgs to 80.5' bgs

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Birmingham, Alabama 35205

# Boring/Monitoring Well Log: MW-12

Page 5 of 6

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 08 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** E. Beers/M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
81							20/30 silica sand filterpack from 80.5' bgs to 93.5'bgs
82							
83							
84							
85							
86							
87							
88							
89							2-inch, 10', schedule 40 PVC, slotted (0.010-inch slot) screen
90							
91							
92							
93							Total depth of well: 93.5' bgs
94		Olive to grey slightly silty, micaceous, v dense clay					
95							
96							
97							
98							
99							
100							

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# Boring/Monitoring Well Log: MW-12

Page 6 of 6

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 08 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** E. Beers/M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112		<b>Pottsville Formation</b>					
113		Olive to dk grey, fine to medium grained quartzose sandstone					
114							
115							
116							
117		End of Borehole					
118							
119							
120							

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# Boring/Monitoring Well Log: MW-13

Page 1 of 3

Project: Northington Cleaners

Client: McFarland Mall

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 11 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
0		Ground Surface					
0		Tan fine sand					Flush mount well
1							
2							
3							
4							
5		Reddish-brown fine, micaceous sand					
6		Yellowish-brown fine sand with several lt grey silty clay layers (1 - 2mm); hard to distinguish these layers					9-inch diameter borehole
7							
8		Tan to white fine sand with several thin (1cm) lt grey sandy clay layers @ 8'bgs					
9							
10		Yellowish-tan fine silty sand with lt grey silty clay layers (1 - 3cm thick) @ 10' and 11' bgs					
11							
12							2-inch diameter, schedule 40 PVC riser
13		Reddish-brown fine silty sand with >5% medium sand					
14							
15							
16		Tan to lt reddish slightly silty fine sand with rounded gravel 1 - 4cm; thin (0.5cm) organic layer @ 17' bgs					
17							
18							
19							
20							

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# Boring/Monitoring Well Log: MW-13

Page 2 of 3

Project: Northington Cleaners

Client: McFarland Mall

Drill Mthd: RotaSonic






Project Location: Tuscaloosa, AL

Drill Date: 11 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
21		Lt yellowish to lt tan slightly silty fine, micaceous sand with thin (2.5mm) layer of tan sandy clay @ 25' bgs					Portland cement grout with 10% powdered bentonite from 0.5' bgs to 34' bgs
22							
23							
24							
25		Yellowish-brown fine sand with a tan to dk grey banded 2cm thick sandy clay layer; wet					
26							
27							
28							
29		Lt tan to yellowish brown fine silty, micaceous sand with 2 - 4mm diameter organic inclusions @ 33' - 35' bgs					
30							
31							
32							
33		Orange fine sand; wet					3/8-inch Holeplug bentonite seal from 34' bgs to 37.3' bgs
34							
35							
36							
37							20/30 silica sand filter pack from 37.3' bgs to 50.3' bgs
38							
39							
40							

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# Boring/Monitoring Well Log: MW-13

Page 3 of 3

**Project:** Northington Cleaners

**Client:** McFarland Mall

**Drill Mthd:** RotaSonic

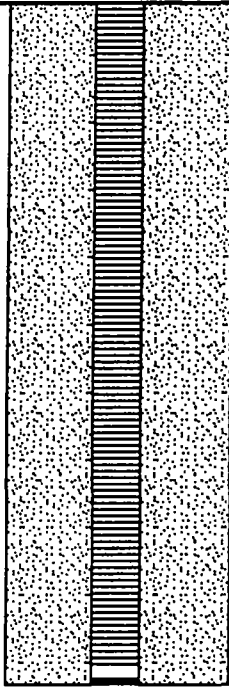
**Project Location:** Tuscaloosa, AL

**Drill Date:** 11 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
41		Reddish-brown fine to medium silty, micaceous sand with sub-angular gravel 2.5mm in diameter					2-inch diameter, 10', schedule 40 PVC, slotted (0.010-inch slot) screen from 40.25' bgs to 50.3' bgs  Total depth of well: 50.3' bgs
42							
43		Medium to dk brown bedded, very sandy clay grading into a gravel zone; gravel sub-rounded to sub-angular 0.25 - 4cm in diameter					
44							
45		Orange-red fine silty sand with sub-angular gravel 0.5 - 1cm in diameter					
46							
47		Tan to dk brown bedded, very sandy clay with a 1cm thick organic layer					
48		Orange-red fine silty, micaceous sand					
49							
50		End of Borehole					
51							
52							
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						<b>Bhate Environmental</b> 1608 13th Avenue South, Suite 300 Birmingham, Alabama 35205	

# Boring/Monitoring Well Log: MW-14

Page 1 of 4

Project: Northington Cleaners

Client: McFarland Mall Limited

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 16 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
0		Ground Surface					Flush mount well
0		Asphalt, gravel and construction fill					
1							
2							
3		Reddish-brown fine, silty sand with a trace of lt grey silty clay					
4							
5		Lt to dk brown sandy clay (1 - 2cm thick) with a trace of rounded gravel 2.5 - 5 mm in diameter bedded with a silty grey clay (2.5 - 3mm thick)					
6							
7		Brownish-red fine, clayey sand with sub-angular to rounded gravel 5mm - 2cm in diameter					
8		Brown v sandy clay bedded with red sandy clay					9-inch diameter borehole
8		Brown fine, silty sand, v moist					
9							
10							
11		White fine, silty sand with a gravel zone @ 11' bgs of sub-rounded to rounded gravel 0.25 - 2.5cm in diameter; gravel zone 8 - 10cm thick					
12		No recovery					2-inch diameter, schedule 40 PVC riser
13							
14							

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# Boring/Monitoring Well Log: MW-14

Page 2 of 4

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 16 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
15							
16		Grey sandy gravel zone of rounded to sub-angular gravel 0.5 - 2cm; sand fine to coarse					
17		Dk grey v sandy clay; wet					
18		Med grey sandy gravel zone of sub-angular to rounded gravel 0.5 - 3.5cm; sand medium to coarse; wet					
19							
20							
21		Yellowish-brown fine, silty, micaceous sand; v moist					
22							
23							
24							
25							
26							
27							
28							

Portland cement grout with 10% powdered bentonite from 0.5' bgs to 33.5' bgs

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# Boring/Monitoring Well Log: MW-14

Page 3 of 4

Project: Northington Cleaners

Client: McFarland Mall Limited

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 16 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
29							
30							
31							
32							
33							
34		Reddish-brown fine, silty, micaceous sand					
35							3/8-inch Holeplug bentonite seal from 33.5' bgs to 37' bgs
36		Yellowish-brown fine, silty, micaceous sand with a gravel zone @ 36.5' bgs to 37.5' bgs of sub-rounded to rounded gravel, 0.5 - 3cm in diameter					
37							
38		Grey-brown silty clay layer (5 - 6cm thick) @ 38' bgs					
39		Brown silty clay layer (2mm thick) @ 39' bgs					
40							20/30 silica sand filter pack from 37' bgs to 50.4' bgs
41							
42							

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# Boring/Monitoring Well Log: MW-14

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Project: Northington Cleaners

Client: McFarland Mall Limited

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 16 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
43							
44							
45							
46							
47							
48							
49							
50							
51		End of Borehole					
52							
53							
54							
55							
56							

2-inch diameter, 10', schedule 40  
PVC, slotted (0.010-inch slot)  
screen from 40.4' bgs to 50.4' bgs

Total well depth: 50.4' bgs

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# Boring/Monitoring Well Log: MW-15

Page 1 of 3

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 17 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
0		Ground Surface					
0		Construction fill					Flush mount well
1							
2		Dk red v sandy clay with sub-angular gravel 0.5 - 2cm in diameter; wet					
3							
4		Dk red v sandy clay with sub-angular to sub-rounded gravel 0.5 - 4cm in diameter; organic inclusions					
5							
6		Brown to grey v sandy clay with sub-rounded to rounded gravel 0.5 - 3cm in diameter					
7		Dk reddish brown v sandy clay with sub-angular to rounded gravel 0.5 - 3cm in diameter; v moist					9-inch diameter borehole
8							
9		Tan to grey sandy clay with sub-angular to sub-rounded gravel 0.5 - 3cm in diameter					
10							
11		Reddish-brown sandy clay with sub-angular gravel 1 - 3cm in diameter					
12							
13		Grey v sandy clay with rounded gravel 0.5 - 1cm in diameter					
14							2-inch diameter, schedule 40 PVC riser
15		Tan fine, silty sand					
16							
17		Grey fine, silty sand					
18							
19		Grey to brown sandy gravel zone of sub-angular to rounded gravel 0.25 - 4cm in diameter; sand medium to coarse; wet					
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
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# Boring/Monitoring Well Log: MW-15

Page 2 of 3

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 17 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
19							
20							
21		Yellowish-tan fine, micaceous sand bedded with a red fine sand (2 - 5mm thick)					
22							
23							
24							
25		Yellowish-tan fine sand, moist					
26							
27							
28							
29							
30							
31		Yellowish-red fine, silty sand with thin (1 - 2 cm thick) lt grey clay layers					
32							
33							
34							
35		Grey fine sand; wet					
36							

Portland cement grout with 10% powdered bentonite from 0.5' bgs to 33' bgs

3/8-inch Holeplug bentonite seal from 33' bgs to 36.6' bgs

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# Boring/Monitoring Well Log: MW-15

Page 3 of 3

Project: Northington Cleaners

Client: McFarland Mall Limited

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 17 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
37							
38							
39							
40		Brown, dense, slightly silty clay; moist					20/30 silica sand filterpack from 36.6'bgs to 49.7' bgs
41							
42		Tan to grey fine, silty sand with rounded gravels 0.25 - 1cm in diameter					
43							
44		Lt tan to brown fine sand; v moist					2-inch diameter, 10', schedule 40 PVC, slotted (0.010-inch slot) screen from 39.7' bgs to 49.7' bgs
45							
46							
47							
48							
49							
50		End of Borehole					Total depth of well: 49.7' bgs
51							
52							
53							
54							

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# Boring/Monitoring Well Log: MW-16

Page 1 of 4

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 17 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
0		Ground Surface					
0		Top soil					Flush mount well
1							
2		Dk red silty, dense clay; trace of organic inclusions, 5%					
3							
4							
5		Brown sandy clay with sub-angular to rounded gravel, 3mm - 2 cm in diameter; v thin layers of grey and red bedded clean clay throughout (1 - 2mm thick)					
6							
7		Brown to dk red v sandy clay with abundant sub-angular to rounded gravel 3mm - 3cm in diameter					9-inch diameter borehole
8		Dk grey fine, clayey sand with rounded gravel 0.2 - 1cm; v wet @ 10' bgs					
9							
10							
11							
12		Sharp transition into v sandy grey to red clay; moist					2-inch diameter, schedule 40 PVC riser
13		Perched aquifer @ 10' bgs to 13.5' bgs					
14		Slowly grades into grey fine, clayey sand					
15							

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# Boring/Monitoring Well Log: MW-16

Page 2 of 4

Project: Northington Cleaners

Client: McFarland Mall Limited

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 17 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
16		Grey fine sand; moist					
17		Grey fine, micaceous sand; grades into brown					
18		Brown sandy (med-coarse) gravel zone of sub-rounded to rounded gravel; 0.3 - 3cm in diameter; thin (3cm) grey silty clay layer @ 19' bgs					
19		Yellowish-brown fine, silty, micaceous sand; moist					
20							
21							
22							
23		Yellowish-brown fine, silty sand					
24							
25							
26		Yellowish-brown fine, micaceous sand; v wet					
27							
28							
29							
30							

Portland cement grout with 10% powdered bentonite from 0.5' bgs to 34' bgs

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# Boring/Monitoring Well Log: MW-16

Page 3 of 4

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 17 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
31		Tan fine, micaceous sand with thin (3mm) layers of reddish fine silty sand throughout					
32							
33							
34							
35							
36		Tan-brown fine, silty sand; moist					3/8-inch Holeplug bentonite seal from 34' bgs to 37.5' bgs
37							
38							
39							
40							
41		Dk reddish-brown fine, silty sand; thin (2cm) grey v clean, dense clay layer @ 45' bgs					20/30 silica sand filterpack from 37.5' bgs to 50.9' bgs
42							
43							
44							
45							

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# Boring/Monitoring Well Log: MW-16

Page 4 of 4

Project: Northington Cleaners

Client: McFarland Mall Limited

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 17 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
46							
47							
48							
49							
50							
51		End of Borehole					Total depth of well: 50.9' bgs
52							
53							
54							
55							
56							
57							
58							
59							
60							

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# Boring/Monitoring Well Log: MW-17

Page 1 of 3

Project: Northington Cleaners

Client: MacFarland Mall Limited

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 10 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
0		Ground Surface					
0		Construction fill					
1		Orange fine silty sand with sub-angular gravel 0.5 - 3cm in diameter					Flush mount well
2							
3							
4							
5							
6		Orange to reddish brown sandy clay with trace of rounded to sub-angular gravel 0.25 - 1.5cm in diameter					9-inch diameter borehole
7							
8		Reddish fine sand with sub-rounded to rounded gravel 0.25 - 3cm in diameter					
9							
10		Yellow fine sand with some rounded gravel 0.5 - 2cm in diameter with lt grey and brownish red sandy clay layer @ 9.5' and 11' bgs; both clay layers 2.5cm thick					2-inch diameter, schedule 40 PVC riser
11							
12							
13		Lt tan to yellow fine clean sand					
14							
15							
16		Very Low Recovery					
17		White to yellow fine sand with thin layers (2.5mm) of dk grey fine sand, moist					
18		Grades into a tan fine sand					
19		Grades into a reddish fine, silty sand, v moist					
20							

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# Boring/Monitoring Well Log: MW-17

Page 2 of 3

**Project:** Northington Cleaners

**Client:** MacFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 10 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
21							
22							
23							
24							
25							
26							
27		Orange-brown fine silty sand with several thin layers (5mm) of grey sandy, micaceous clay @ 29' and 32' bgs					
28							
29							
30							
31							
32							
33							
34							
35		Yellowish-brown fine sand with several v thin layers (1mm) of a fine grey sand					
36							
37		Brown fine, silty sand, v wet					
38							
39		Tan to lt brown fine, silty, micaceous sand with v thin (2 - 4mm) layers of organic material throughout					
40							

Portland cement grout with 10% powdered bentonite from 0.5' bgs to 34' bgs

3/8-inch Holeplug bentonite seal from 34' bgs to 37' bgs

20/30 silica sand filter pack from 37' bgs to 49.3 bgs

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# Boring/Monitoring Well Log: MW-17

Page 3 of 3

**Project:** Northington Cleaners

**Client:** MacFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 10 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
41							
42							
43							
44		Tan to lt brown fine, micaceous sand with thin layers (6 - 7mm) of organic material					2-inch diameter, 10', schedule 40, slotted (0.010-inch slot) screen from 39.3' bgs to 49.3' bgs
45							
46							
47							
48							
49							
50							Total depth of well: 49.3' bgs
51		End of Borehole					
52							
53							
54							
55							
56							
57							
58							
59							
60							

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# Boring/Monitoring Well Log: MW-18

Page 1 of 6

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 09 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
0		Ground Surface					
1		Lt tan to orange brown fine sand with sub-angular to rounded gravel up to 2cm					Flush mount well
2							
3							
4							
5							
6		Orange-brown fine sand with 20% sub-angular gravels up to 2.5cm					9-inch diameter borehole
7							
8							
9		Tan-yellow fine sand with sub-angular gravel up to 0.5cm					2-inch diameter, schedule 40 PVC riser
10							
11							
12							
13							
14		Tan to white clean, fine sand; moist					
15							
16		Light brown fine sand with sub-rounded gravels 2mm - 1cm in diameter; moist					
17							
18		Light tan to white fine sand, interbedded with dk grey to brown fine sand with sub-rounded gravel 0.25 - 1cm in					
19							
20							

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1608 13th Avenue South, Suite 300  
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# Boring/Monitoring Well Log: MW-18

Page 2 of 6

Project: Northington Cleaners

Client: McFarland Mall Limited

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 09 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
21							
22							
23		Orange-brown fine sand with few sub-angular gravel 0.25 - 0.75cm in diameter, moist					
24							
25							
26		Orange-brown fine sand, wet					
27							
28							
29							
30							
31							
32							
33		Brown fine sand, wet, several clay layers 2 - 4mm thick @ 33' to 34'					
34							
35							
36		Orange-brown fine sand, wet; several thin (2 - 4mm) layers of reddish and white fine, micaceous sand					
37							
38							
39							
40							

Portland cement grout with 10% powdered bentonite from 0.5' bgs to 83.5' bgs

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# Boring/Monitoring Well Log: MW-18

Page 3 of 6

Project: Northington Cleaners

Client: McFarland Mall Limited

Drill Mthd: RotaSonic

Project Location: Tuscaloosa, AL

Drill Date: 09 May 2001

Sampling Mthd: 10' Sample Core Barrel

Project Number: 9010095

Engineer/Geologist: M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
41							
42							
43							
44							
45							
46		Tan-orange fine, micaceous sand; trace of organic material					
47							
48		Tan to lt brown fine, micaceous sand; organic amount increasing, organic material 0.75cm in diameter					
49							
50							
51							
52							
53							
54		Orange fine sand with trace of rounded gravel 3 - 4cm, moist					
55							
56		Tan to orange-brown fine sand with sub-rounded gravel up to 1cm; 1.5cm thick lt brown sandy clay layer @ 57.5' bgs					
57							
58		Very dk brown fine sand, wet					
59							
60							

**Bhate Environmental**  
1608 13th Avenue South, Suite 300  
Birmingham, Alabama 35205

# Boring/Monitoring Well Log: MW-18

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**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 09 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
61		Orange-brown fine sand with sub-angular to sub-rounded gravel 0.25 - 6cm; 1cm thick lt tan silty clay layer @ 59' bgs;					
62		3cm thick brown sandy clay layer @ 61' bgs					
63		V dk brown to tannish brown fine sand with sub-angular to sub-rounded gravel up to 2cm;					
64		brown sandy (fine) claylayer with 30% gravel, rounded @ 63' bgs					
65							
66		Brown to reddish mottled sandy (fine) clay with abundant organics and sub-rounded gravel up to 7mm					
67							
68		Brown fine-med sand with rounded gravel up to 0.5cm; dense tan clay layer 2mm thick @ 66.5 bgs					
69							
70		Orange fine, micaceous sand					
71		Tan fine sand with v thin layers (2mm) of dk grey fine sand throughout					
72							
73							
74							
75							
76							
77		Tan to brown fine sand with a trace of medium sand >5%, moist					
78							
79							
80							

**Bhate Environmental**  
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# Boring/Monitoring Well Log: MW-18

Page 5 of 6

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic

**Project Location:** Tuscaloosa, AL

**Drill Date:** 09 May 2001

**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
81							
82		Orange-brown fine, silty, micaceous sand					
83							
84							
85							
86		Orange-brown fine, silty sand					
87							
88							
89							
90		Orange-brown fine silty sandgrading into a gravel zone, sub-rounded 0.25 - 3.5cm in diameter					
91							
92		Orange-brown sandy gravel zone, sub-rounded to rounded, 0.25 to 6cm, v wet; 2cm thick					
93		lt grey silty clay layer @ 95' bgs					
94							
95		Sharp gradation into tan silty sand with 40% gravel rounded 0.25 - 4cm in diameter					
96							
97		Brown, sandy gravel zone; v wet; gravel rounded 0.25 - 2cm in diameter					
98		Tan to brown fine sand with rounded gravel 0.5 - 5cm in diameter					
99							
100							

3/8-inch Holeplug bentonite seal from 83.5' to 86.5' bgs

20/30 silica sand filter pack from 86.5' to 100.3' bgs

2-inch diameter 10' schedule 40 slotted (0.010" slot) screen from 90.3' bgs to 100.3'bgs

**Bhate Environmental**  
1608 13th Avenue South, Suite 300  
Birmingham, Alabama 35205

# Boring/Monitoring Well Log: MW-18

Page 6 of 6

**Project:** Northington Cleaners

**Client:** McFarland Mall Limited

**Drill Mthd:** RotaSonic


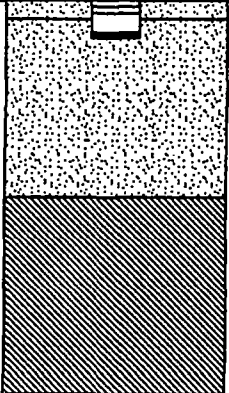
**Project Location:** Tuscaloosa, AL

**Drill Date:** 09 May 2001

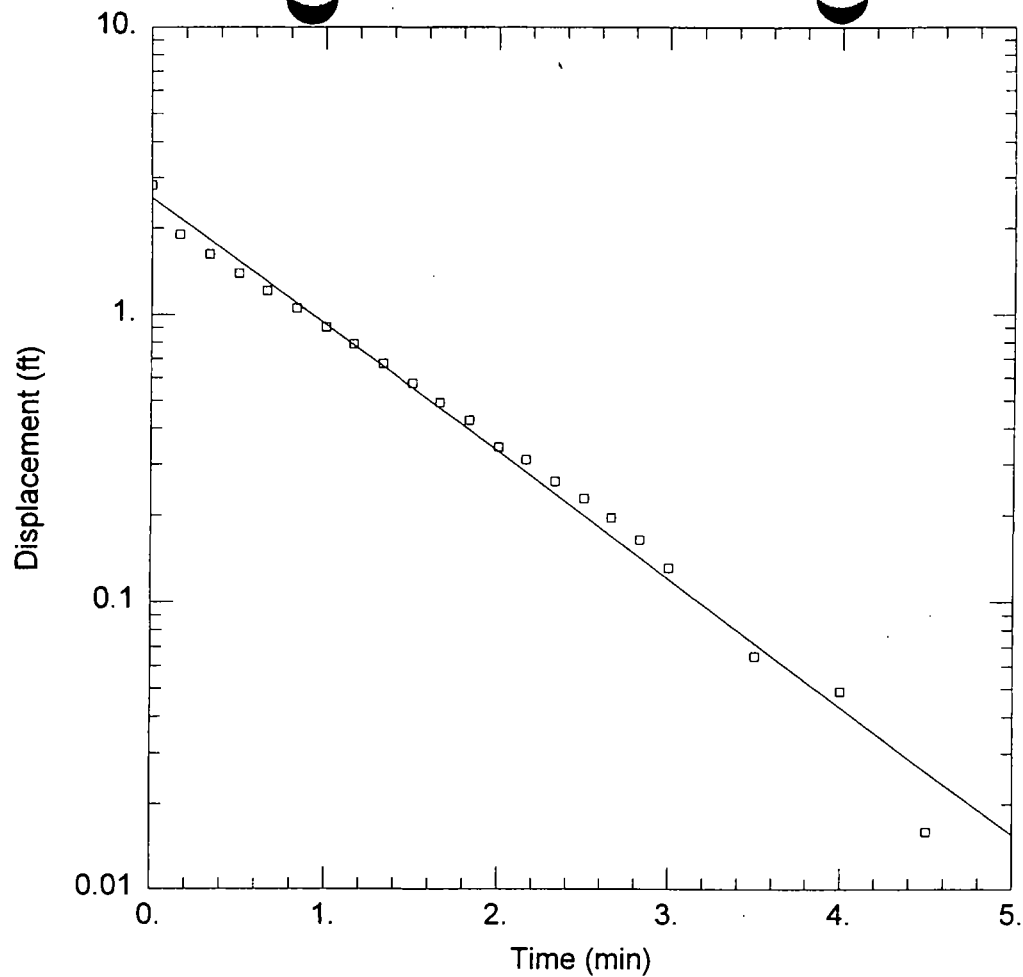
**Sampling Mthd:** 10' Sample Core Barrel

**Project Number:** 9010095

**Engineer/Geologist:** M. Wenzel

Depth (ft)	Symbols	SOIL DESCRIPTION	Sample	SPT Blows/18"	Water Level	Well Completion Details	Well Materials/Description
101		Lt to medium grey silty, dense clay grading into a sandy clay					Total depth of well: 100.3' bgs
102							
103							
104							
105							
106							
107		End of Borehole					
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							

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Birmingham, Alabama 35205



### WELL TEST ANALYSIS

Data Set:

Date: 07/03/01

Time: 17:49:45

### PROJECT INFORMATION

Company: Bhate

Client: McFarland Mall

Project: 9010095

Test Location: Tuscaloosa, Al

Test Well: MW-17

Test Date: 5/21/01

### AQUIFER DATA

Saturated Thickness: 91.89 ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (MW-17)

Initial Displacement: 2.82 ft

Water Column Height: 25.94 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.375 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.3

### SOLUTION

## Data Set:

Date: 07/03/01

Time: 17:48:55

PROJECT INFORMATION

Company: Bhate

Client: McFarland Mall

Project: 9010095

Location: Tuscaloosa, Al

Test Date: 5/21/01

Test Well: MW-17

AQUIFER DATA

Saturated Thickness: 91.89 ft

Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-17

X Location: 0. ft

Y Location: 0. ft

No. of observations: 21

Observation Data

<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>
0.16	1.9	1.33	0.672	2.5	0.229
0.33	1.62	1.5	0.574	2.66	0.196
0.5	1.39	1.66	0.492	2.83	0.164
0.66	1.21	1.83	0.426	3.	0.131
0.83	1.05	2.	0.344	3.5	0.065
1.	0.902	2.16	0.311	4.	0.049
1.16	0.787	2.33	0.262	4.5	0.016

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>
------------------	-----------------

K	8.201	ft/day
y0	2.552	ft

Instrument type : L-Levellogger 03753  
Instrument number : 3884  
Location : SOLINST  
Sample mode : T

Channel 1 : LEVEL  
Reference : 0.0 cm  
Range : 500.0 cm  
Master level : 0.0 cm  
Altitude : 0 m asl

MW-17

No.	Date	Time	To	Channel 1	Disp (cm)	Disp(ft)
1558	05/21/01	14:37:35	0:00:01	321	0	0
1559	05/21/01	14:37:36	0:00:02	321	0	0
1560	05/21/01	14:37:37	0:00:03	324	-3	-0.098425
1561	05/21/01	14:37:38	0:00:04	315	6	0.19685
1562	05/21/01	14:37:39	0:00:05	272.5	48.5	1.591207
1563	05/21/01	14:37:40	0:00:06	250	71	2.329396
1564	05/21/01	14:37:41	0:00:07	249.5	71.5	2.345801
1565	05/21/01	14:37:42	0:00:08	250	71	2.329396
1566	05/21/01	14:37:43	0:00:09	248.5	72.5	2.378609
<del>1567</del>	<del>05/21/01</del>	<del>14:37:44</del>	<del>0:00:10</del>	<del>245</del>	<del>75</del>	<del>2.491503</del>
1568	05/21/01	14:37:45	0:00:11	247.5	73.5	2.411417
1569	05/21/01	14:37:46	0:00:12	251	70	2.296588
1570	05/21/01	14:37:47	0:00:13	249.5	71.5	2.345801
1571	05/21/01	14:37:48	0:00:14	257.5	63.5	2.083333
1572	05/21/01	14:37:49	0:00:15	259	62	2.034121
1573	05/21/01	14:37:50	0:00:16	259.5	61.5	2.017717
1574	05/21/01	14:37:51	0:00:17	260	61	2.001312
1575	05/21/01	14:37:52	0:00:18	261	60	1.968504
1576	05/21/01	14:37:53	0:00:19	262.5	58.5	1.919291
<del>1577</del>	<del>05/21/01</del>	<del>14:37:54</del>	<del>0:00:20</del>	<del>263</del>	<del>58</del>	<del>1.902887</del>
1578	05/21/01	14:37:55	0:00:21	263.5	57.5	1.886483
1579	05/21/01	14:37:56	0:00:22	264.5	56.5	1.853675
1580	05/21/01	14:37:57	0:00:23	265.5	55.5	1.820866
1581	05/21/01	14:37:58	0:00:24	266	55	1.804462
1582	05/21/01	14:37:59	0:00:25	267	54	1.771654
1583	05/21/01	14:38:00	0:00:26	268	53	1.738845
1584	05/21/01	14:38:01	0:00:27	268.5	52.5	1.722441
1585	05/21/01	14:38:02	0:00:28	269.5	51.5	1.689633
1586	05/21/01	14:38:03	0:00:29	270	51	1.673228
<del>1587</del>	<del>05/21/01</del>	<del>14:38:04</del>	<del>0:00:30</del>	<del>270.5</del>	<del>50.5</del>	<del>1.656824</del>
1588	05/21/01	14:38:05	0:00:31	271.5	49.5	1.624016
1589	05/21/01	14:38:06	0:00:32	272.5	48.5	1.591207
1590	05/21/01	14:38:07	0:00:33	273	48	1.574803
1591	05/21/01	14:38:08	0:00:34	274	47	1.541995
1592	05/21/01	14:38:09	0:00:35	275	46	1.509186
1593	05/21/01	14:38:10	0:00:36	275	46	1.509186

1594	05/21/01	14:38:11	0:00:37	276	45	1.476378
1595	05/21/01	14:38:12	0:00:38	276.5	44.5	1.459974
1596	05/21/01	14:38:13	0:00:39	277	44	1.44357
<del>1597 05/21/01 14:38:14 0:00:40 278.5 42.5 1.384337</del>						
1598	05/21/01	14:38:15	0:00:41	278.5	42.5	1.394357
1599	05/21/01	14:38:16	0:00:42	279.5	41.5	1.361549
1600	05/21/01	14:38:17	0:00:43	280.5	40.5	1.32874
1601	05/21/01	14:38:18	0:00:44	280.5	40.5	1.32874
1602	05/21/01	14:38:19	0:00:45	281	40	1.312336
1603	05/21/01	14:38:20	0:00:46	282	39	1.279528
1604	05/21/01	14:38:21	0:00:47	282	39	1.279528
1605	05/21/01	14:38:22	0:00:48	283	38	1.246719
1606	05/21/01	14:38:23	0:00:49	284	37	1.213911
<del>1607 05/21/01 14:38:24 0:00:50 284.5 37 1.213911</del>						
1608	05/21/01	14:38:25	0:00:51	284.5	36.5	1.197507
1609	05/21/01	14:38:26	0:00:52	285.5	35.5	1.164698
1610	05/21/01	14:38:27	0:00:53	285.5	35.5	1.164698
1611	05/21/01	14:38:28	0:00:54	286.5	34.5	1.13189
1612	05/21/01	14:38:29	0:00:55	286.5	34.5	1.13189
1613	05/21/01	14:38:30	0:00:56	287.5	33.5	1.099081
1614	05/21/01	14:38:31	0:00:57	287.5	33.5	1.099081
1615	05/21/01	14:38:32	0:00:58	288	33	1.082677
1616	05/21/01	14:38:33	0:00:59	289	32	1.049869
<del>1617 05/21/01 14:38:34 0:01:00 289 32 1.049869</del>						
1618	05/21/01	14:38:35	0:01:01	290	31	1.01706
1619	05/21/01	14:38:36	0:01:02	290	31	1.01706
1620	05/21/01	14:38:37	0:01:03	290.5	30.5	1.000656
1621	05/21/01	14:38:38	0:01:04	291	30	0.984252
1622	05/21/01	14:38:39	0:01:05	291.5	29.5	0.967848
1623	05/21/01	14:38:40	0:01:06	292	29	0.951444
1624	05/21/01	14:38:41	0:01:07	292	29	0.951444
1625	05/21/01	14:38:42	0:01:08	292.5	28.5	0.935039
1626	05/21/01	14:38:43	0:01:09	293.5	27.5	0.902231
<del>1627 05/21/01 14:38:44 0:01:10 293.5 27.5 0.902231</del>						
1628	05/21/01	14:38:45	0:01:11	294	27	0.885827
1629	05/21/01	14:38:46	0:01:12	294.5	26.5	0.869423
1630	05/21/01	14:38:47	0:01:13	294.5	26.5	0.869423
1631	05/21/01	14:38:48	0:01:14	295	26	0.853018
1632	05/21/01	14:38:49	0:01:15	295.5	25.5	0.836614
1633	05/21/01	14:38:50	0:01:16	296	25	0.82021
1634	05/21/01	14:38:51	0:01:17	296	25	0.82021
1635	05/21/01	14:38:52	0:01:18	296	25	0.82021
1636	05/21/01	14:38:53	0:01:19	297	24	0.787402
<del>1637 05/21/01 14:38:54 0:01:20 297 24 0.787402</del>						
1638	05/21/01	14:38:55	0:01:21	298	23	0.754593
1639	05/21/01	14:38:56	0:01:22	298	23	0.754593
1640	05/21/01	14:38:57	0:01:23	298	23	0.754593
1641	05/21/01	14:38:58	0:01:24	298.5	22.5	0.738189
1642	05/21/01	14:38:59	0:01:25	299	22	0.721785

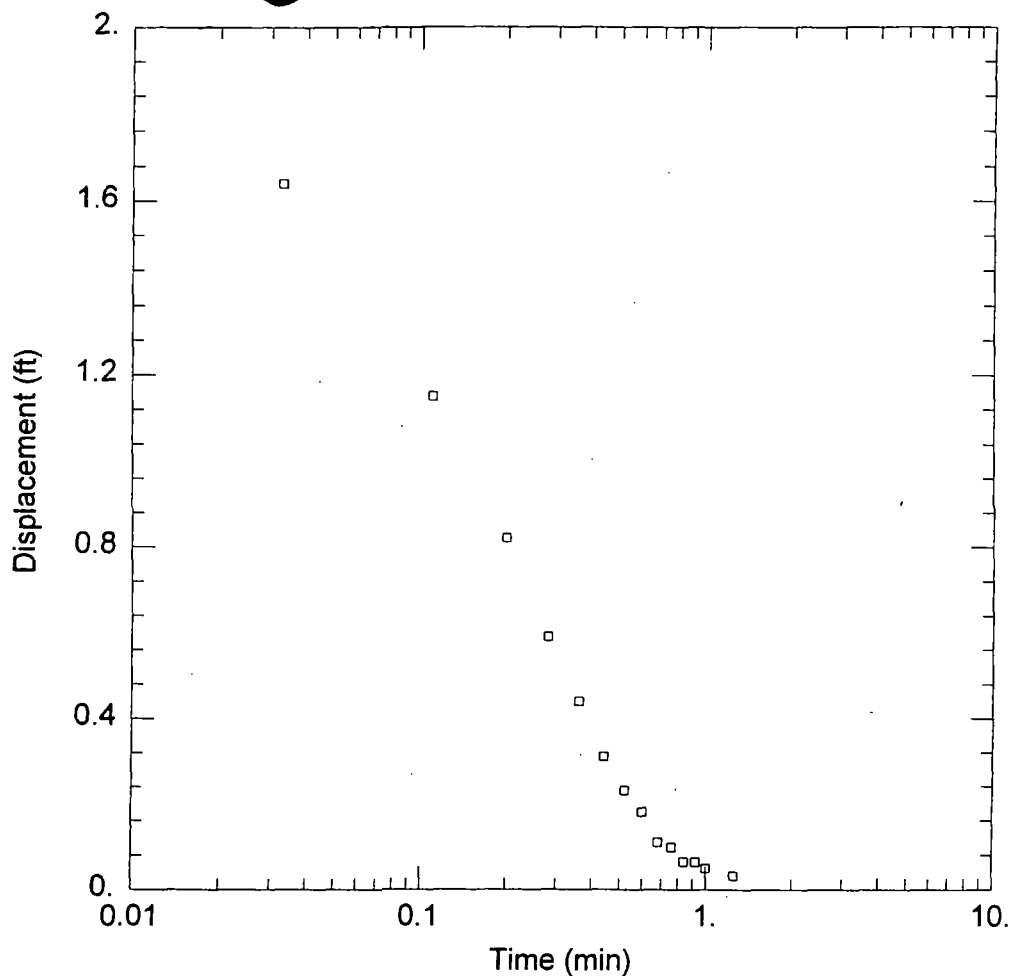
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1644	05/21/01	14:39:01	0:01:27	300	21	0.688976
1645	05/21/01	14:39:02	0:01:28	300	21	0.688976
1646	05/21/01	14:39:03	0:01:29	300	21	0.688976
<del>1647</del>	<del>05/21/01</del>	<del>14:39:04</del>	<del>0:01:30</del>	<del>300.5</del>	<del>20.5</del>	<del>0.688976</del>
1648	05/21/01	14:39:05	0:01:31	1.37 301.5	19.5	0.639764
1649	05/21/01	14:39:06	0:01:32	301.5	19.5	0.639764
1650	05/21/01	14:39:07	0:01:33	301.5	19.5	0.639764
1651	05/21/01	14:39:08	0:01:34	301.5	19.5	0.639764
1652	05/21/01	14:39:09	0:01:35	302	19	0.62336
1653	05/21/01	14:39:10	0:01:36	302.5	18.5	0.606955
1654	05/21/01	14:39:11	0:01:37	303	18	0.590551
1655	05/21/01	14:39:12	0:01:38	303.5	17.5	0.574147
1656	05/21/01	14:39:13	0:01:39	303.5	17.5	0.574147
<del>1657</del>	<del>05/21/01</del>	<del>14:39:14</del>	<del>0:01:40</del>	<del>303.5</del>	<del>17.5</del>	<del>0.574147</del>
1658	05/21/01	14:39:15	0:01:41	1.5 303.5	17.5	0.574147
1659	05/21/01	14:39:16	0:01:42	304	17	0.557743
1660	05/21/01	14:39:17	0:01:43	304	17	0.557743
1661	05/21/01	14:39:18	0:01:44	304.5	16.5	0.541339
1662	05/21/01	14:39:19	0:01:45	305	16	0.524934
1663	05/21/01	14:39:20	0:01:46	305	16	0.524934
1664	05/21/01	14:39:21	0:01:47	305	16	0.524934
1665	05/21/01	14:39:22	0:01:48	305.5	15.5	0.50853
1666	05/21/01	14:39:23	0:01:49	306	15	0.492126
<del>1667</del>	<del>05/21/01</del>	<del>14:39:24</del>	<del>0:01:50</del>	<del>306</del>	<del>15</del>	<del>0.492126</del>
1668	05/21/01	14:39:25	0:01:51	1.6 306	15	0.492126
1669	05/21/01	14:39:26	0:01:52	306.5	14.5	0.475722
1670	05/21/01	14:39:27	0:01:53	307	14	0.459318
1671	05/21/01	14:39:28	0:01:54	307	14	0.459318
1672	05/21/01	14:39:29	0:01:55	307	14	0.459318
1673	05/21/01	14:39:30	0:01:56	307	14	0.459318
1674	05/21/01	14:39:31	0:01:57	307.5	13.5	0.442913
1675	05/21/01	14:39:32	0:01:58	307.5	13.5	0.442913
1676	05/21/01	14:39:33	0:01:59	307.5	13.5	0.442913
<del>1677</del>	<del>05/21/01</del>	<del>14:39:34</del>	<del>0:02:00</del>	<del>308</del>	<del>13</del>	<del>0.426508</del>
1678	05/21/01	14:39:35	0:02:01	1.83 308.5	12.5	0.410105
1679	05/21/01	14:39:36	0:02:02	308.5	12.5	0.410105
1680	05/21/01	14:39:37	0:02:03	308.5	12.5	0.410105
1681	05/21/01	14:39:38	0:02:04	308.5	12.5	0.410105
1682	05/21/01	14:39:39	0:02:05	309.5	11.5	0.377297
1683	05/21/01	14:39:40	0:02:06	309.5	11.5	0.377297
1684	05/21/01	14:39:41	0:02:07	309.5	11.5	0.377297
1685	05/21/01	14:39:42	0:02:08	309.5	11.5	0.377297
1686	05/21/01	14:39:43	0:02:09	309.5	11.5	0.377297
<del>1687</del>	<del>05/21/01</del>	<del>14:39:44</del>	<del>0:02:10</del>	<del>310.5</del>	<del>10.5</del>	<del>0.344488</del>
1688	05/21/01	14:39:45	0:02:11	2 310.5	10.5	0.344488
1689	05/21/01	14:39:46	0:02:12	310.5	10.5	0.344488
1690	05/21/01	14:39:47	0:02:13	310.5	10.5	0.344488
1691	05/21/01	14:39:48	0:02:14	310.5	10.5	0.344488

1692	05/21/01	14:39:49	0:02:15	310.5	10.5	0.344488
1693	05/21/01	14:39:50	0:02:16	310.5	10.5	0.344488
1694	05/21/01	14:39:51	0:02:17	311.5	9.5	0.31168
1695	05/21/01	14:39:52	0:02:18	311	10	0.328084
1696	05/21/01	14:39:53	0:02:19	311.5	9.5	0.31168
<del>1697</del>	<del>05/21/01</del>	<del>14:39:54</del>	<del>0:02:20</del>	<del>311.5</del>	<del>9.5</del>	<del>0.31168</del>
1698	05/21/01	14:39:55	0:02:21 <sup>2.16</sup>	312	9	0.295276
1699	05/21/01	14:39:56	0:02:22	312	9	0.295276
1700	05/21/01	14:39:57	0:02:23	312	9	0.295276
1701	05/21/01	14:39:58	0:02:24	312	9	0.295276
1702	05/21/01	14:39:59	0:02:25	312	9	0.295276
1703	05/21/01	14:40:00	0:02:26	312	9	0.295276
1704	05/21/01	14:40:01	0:02:27	312.5	8.5	0.278871
1705	05/21/01	14:40:02	0:02:28	312.5	8.5	0.278871
1706	05/21/01	14:40:03	0:02:29	313	8	0.262467
<del>1707</del>	<del>05/21/01</del>	<del>14:40:04</del>	<del>0:02:30</del>	<del>313</del>	<del>8</del>	<del>0.262467</del>
1708	05/21/01	14:40:05	0:02:31 <sup>2.33</sup>	313	8	0.262467
1709	05/21/01	14:40:06	0:02:32	314	7	0.229659
1710	05/21/01	14:40:07	0:02:33	314	7	0.229659
1711	05/21/01	14:40:08	0:02:34	314	7	0.229659
1712	05/21/01	14:40:09	0:02:35	314	7	0.229659
1713	05/21/01	14:40:10	0:02:36	314	7	0.229659
1714	05/21/01	14:40:11	0:02:37	314	7	0.229659
1715	05/21/01	14:40:12	0:02:38	314	7	0.229659
1716	05/21/01	14:40:13	0:02:39	314	7	0.229659
<del>1717</del>	<del>05/21/01</del>	<del>14:40:14</del>	<del>0:02:40</del>	<del>314</del>	<del>7</del>	<del>0.229659</del>
1718	05/21/01	14:40:15	0:02:41 <sup>2.5</sup>	314	7	0.229659
1719	05/21/01	14:40:16	0:02:42	314	7	0.229659
1720	05/21/01	14:40:17	0:02:43	314	7	0.229659
1721	05/21/01	14:40:18	0:02:44	314.5	6.5	0.213255
1722	05/21/01	14:40:19	0:02:45	315	6	0.19685
1723	05/21/01	14:40:20	0:02:46	315	6	0.19685
1724	05/21/01	14:40:21	0:02:47	315	6	0.19685
1725	05/21/01	14:40:22	0:02:48	315	6	0.19685
1726	05/21/01	14:40:23	0:02:49	315	6	0.19685
<del>1727</del>	<del>05/21/01</del>	<del>14:40:24</del>	<del>0:02:50</del>	<del>315</del>	<del>6</del>	<del>0.19685</del>
1728	05/21/01	14:40:25	0:02:51 <sup>2.66</sup>	315.5	5.5	0.180446
1729	05/21/01	14:40:26	0:02:52	315.5	5.5	0.180446
1730	05/21/01	14:40:27	0:02:53	315.5	5.5	0.180446
1731	05/21/01	14:40:28	0:02:54	315.5	5.5	0.180446
1732	05/21/01	14:40:29	0:02:55	315.5	5.5	0.180446
1733	05/21/01	14:40:30	0:02:56	315.5	5.5	0.180446
1734	05/21/01	14:40:31	0:02:57	315.5	5.5	0.180446
1735	05/21/01	14:40:32	0:02:58	315.5	5.5	0.180446
1736	05/21/01	14:40:33	0:02:59	315.5	5.5	0.180446
<del>1737</del>	<del>05/21/01</del>	<del>14:40:34</del>	<del>0:03:00</del>	<del>316</del>	<del>5</del>	<del>0.164042</del>
1738	05/21/01	14:40:35	0:03:01 <sup>2.83</sup>	316	5	0.164042
1739	05/21/01	14:40:36	0:03:02	316.5	4.5	0.147638
1740	05/21/01	14:40:37	0:03:03	316.5	4.5	0.147638

1741	05/21/01	14:40:38	0:03:04	316.5	4.5	0.147638
1742	05/21/01	14:40:39	0:03:05	316.5	4.5	0.147638
1743	05/21/01	14:40:40	0:03:06	316.5	4.5	0.147638
1744	05/21/01	14:40:41	0:03:07	316.5	4.5	0.147638
1745	05/21/01	14:40:42	0:03:08	316.5	4.5	0.147638
1746	05/21/01	14:40:43	0:03:09	317	4	0.131234
1747	05/21/01	14:40:44	0:03:10 3.	317	4	0.131234
1748	05/21/01	14:40:45	0:03:11	317	4	0.131234
1749	05/21/01	14:40:46	0:03:12	317.5	3.5	0.114829
1750	05/21/01	14:40:47	0:03:13	317.5	3.5	0.114829
1751	05/21/01	14:40:48	0:03:14	317.5	3.5	0.114829
1752	05/21/01	14:40:49	0:03:15	317	4	0.131234
1753	05/21/01	14:40:50	0:03:16	317.5	3.5	0.114829
1754	05/21/01	14:40:51	0:03:17	317.5	3.5	0.114829
1755	05/21/01	14:40:52	0:03:18	317.5	3.5	0.114829
1756	05/21/01	14:40:53	0:03:19	317.5	3.5	0.114829
1757	05/21/01	14:40:54	0:03:20	317.5	3.5	0.114829
1758	05/21/01	14:40:55	0:03:21	317.5	3.5	0.114829
1759	05/21/01	14:40:56	0:03:22	317.5	3.5	0.114829
1760	05/21/01	14:40:57	0:03:23	317.5	3.5	0.114829
1761	05/21/01	14:40:58	0:03:24	317.5	3.5	0.114829
1762	05/21/01	14:40:59	0:03:25	317.5	3.5	0.114829
1763	05/21/01	14:41:00	0:03:26	317.5	3.5	0.114829
1764	05/21/01	14:41:01	0:03:27	318	3	0.098425
1765	05/21/01	14:41:02	0:03:28	318	3	0.098425
1766	05/21/01	14:41:03	0:03:29	318	3	0.098425
<del>1767</del>	<del>05/21/01</del>	<del>14:41:04</del>	<del>0:03:30</del>	<del>318</del>	<del>2</del>	<del>0.098425</del>
1768	05/21/01	14:41:05	0:03:31	318.5	2.5	0.082021
1769	05/21/01	14:41:06	0:03:32	318	3	0.098425
1770	05/21/01	14:41:07	0:03:33	318	3	0.098425
1771	05/21/01	14:41:08	0:03:34	318.5	2.5	0.082021
1772	05/21/01	14:41:09	0:03:35	318.5	2.5	0.082021
1773	05/21/01	14:41:10	0:03:36	318.5	2.5	0.082021
1774	05/21/01	14:41:11	0:03:37	318.5	2.5	0.082021
1775	05/21/01	14:41:12	0:03:38	318.5	2.5	0.082021
1776	05/21/01	14:41:13	0:03:39	319	2	0.065617
1777	05/21/01	14:41:14	0:03:40 3.5	319	2	0.065617
1778	05/21/01	14:41:15	0:03:41	319	2	0.065617
1779	05/21/01	14:41:16	0:03:42	319	2	0.065617
1780	05/21/01	14:41:17	0:03:43	319	2	0.065617
1781	05/21/01	14:41:18	0:03:44	319	2	0.065617
1782	05/21/01	14:41:19	0:03:45	319	2	0.065617
1783	05/21/01	14:41:20	0:03:46	319	2	0.065617
1784	05/21/01	14:41:21	0:03:47	319	2	0.065617
1785	05/21/01	14:41:22	0:03:48	319	2	0.065617
1786	05/21/01	14:41:23	0:03:49	319	2	0.065617
1787	05/21/01	14:41:24	0:03:50	319	2	0.065617
1788	05/21/01	14:41:25	0:03:51	319	2	0.065617
1789	05/21/01	14:41:26	0:03:52	319	2	0.065617

1790	05/21/01	14:41:27	0:03:53	319	2	0.065617
1791	05/21/01	14:41:28	0:03:54	319	2	0.065617
1792	05/21/01	14:41:29	0:03:55	319	2	0.065617
1793	05/21/01	14:41:30	0:03:56	319	2	0.065617
1794	05/21/01	14:41:31	0:03:57	319	2	0.065617
1795	05/21/01	14:41:32	0:03:58	319.5	1.5	0.049213
1796	05/21/01	14:41:33	0:03:59	319	2	0.065617
<del>1797</del>	<del>05/21/01</del>	<del>14:41:34</del>	<del>0:04:00</del>	<del>319</del>	<del>2</del>	<del>0.065617</del>
1798	05/21/01	14:41:35	0:04:01	319	2	0.065617
1799	05/21/01	14:41:36	0:04:02	319.5	1.5	0.049213
1800	05/21/01	14:41:37	0:04:03	319	2	0.065617
1801	05/21/01	14:41:38	0:04:04	319.5	1.5	0.049213
1802	05/21/01	14:41:39	0:04:05	319.5	1.5	0.049213
1803	05/21/01	14:41:40	0:04:06	319.5	1.5	0.049213
1804	05/21/01	14:41:41	0:04:07	319.5	1.5	0.049213
1805	05/21/01	14:41:42	0:04:08	319.5	1.5	0.049213
1806	05/21/01	14:41:43	0:04:09	319.5	1.5	0.049213
1807	05/21/01	14:41:44	0:04:10	319.5	1.5	0.049213
1808	05/21/01	14:41:45	0:04:11	320	1	0.032808
1809	05/21/01	14:41:46	0:04:12	320	1	0.032808
1810	05/21/01	14:41:47	0:04:13	320	1	0.032808
1811	05/21/01	14:41:48	0:04:14	320	1	0.032808
1812	05/21/01	14:41:49	0:04:15	320	1	0.032808
1813	05/21/01	14:41:50	0:04:16	320	1	0.032808
1814	05/21/01	14:41:51	0:04:17	320	1	0.032808
1815	05/21/01	14:41:52	0:04:18	320	1	0.032808
1816	05/21/01	14:41:53	0:04:19	320	1	0.032808
1817	05/21/01	14:41:54	0:04:20	320	1	0.032808
1818	05/21/01	14:41:55	0:04:21	320.5	0.5	0.016404
1819	05/21/01	14:41:56	0:04:22	320	1	0.032808
1820	05/21/01	14:41:57	0:04:23	320	1	0.032808
1821	05/21/01	14:41:58	0:04:24	320	1	0.032808
1822	05/21/01	14:41:59	0:04:25	320	1	0.032808
1823	05/21/01	14:42:00	0:04:26	320.5	0.5	0.016404
1824	05/21/01	14:42:01	0:04:27	320	1	0.032808
1825	05/21/01	14:42:02	0:04:28	320	1	0.032808
1826	05/21/01	14:42:03	0:04:29	320	1	0.032808
<del>1827</del>	<del>05/21/01</del>	<del>14:42:04</del>	<del>0:04:30</del>	<del>320</del>	<del>1</del>	<del>0.032808</del>
1828	05/21/01	14:42:05	0:04:31	320.5	0.5	0.016404
1829	05/21/01	14:42:06	0:04:32	320.5	0.5	0.016404
1830	05/21/01	14:42:07	0:04:33	321	0	0
1831	05/21/01	14:42:08	0:04:34	320.5	0.5	0.016404
1832	05/21/01	14:42:09	0:04:35	320	1	0.032808
1833	05/21/01	14:42:10	0:04:36	320.5	0.5	0.016404
1834	05/21/01	14:42:11	0:04:37	320.5	0.5	0.016404
1835	05/21/01	14:42:12	0:04:38	320.5	0.5	0.016404
1836	05/21/01	14:42:13	0:04:39	320.5	0.5	0.016404
1837	05/21/01	14:42:14	0:04:40	321	0	0
1838	05/21/01	14:42:15	0:04:41	320.5	0.5	0.016404

1839	05/21/01	14:42:16	0:04:42	320.5	0.5	0.016404
1840	05/21/01	14:42:17	0:04:43	321	0	0
1841	05/21/01	14:42:18	0:04:44	321	0	0
1842	05/21/01	14:42:19	0:04:45	321	0	0
1843	05/21/01	14:42:20	0:04:46	321	0	0
1844	05/21/01	14:42:21	#####	321	0	0



### WELL TEST ANALYSIS

Data Set:

Date: 07/03/01

Time: 16:43:06

### PROJECT INFORMATION

Company: Bhate

Client: McFarland

Project: 9010095

Test Location: Tuscaloosa, Al

Test Well: MW-13

Test Date: 5/21/01

### AQUIFER DATA

Saturated Thickness: 91.89 ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (MW-13)

Initial Displacement: 1.64 ft

Water Column Height: 35.3 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.375 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.3

Data Set:

Date: 07/03/01

Time: 16:45:47

PROJECT INFORMATION

Company: Bhate

Client: McFarland

Project: 9010095

Location: Tuscaloosa, Al

Test Date: 5/21/01

Test Well: MW-13

AQUIFER DATA

Saturated Thickness: 91.89 ft

Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-13

X Location: 0. ft

Y Location: 0. ft

No. of observations: 14

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.033	1.64	0.44	0.31	0.84	0.065
0.11	1.15	0.52	0.23	0.92	0.065
0.2	0.82	0.6	0.18	1.	0.049
0.28	0.59	0.68	0.11	1.25	0.032
0.36	0.44	0.76	0.098		

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTSEstimated Parameters

Parameter	Estimate	
K	0.02011	ft/min
y0	1.503	ft

Instrument type : L-Levellogger 03753  
Instrument number : 3884  
Location : SOLINST  
Sample mode : T

Channel 1 : LEVEL #NAME?  
Reference : 0.0 cm  
Range : 500.0 cm  
Master level : 0.0 cm 356.5-\$D  
Altitude : 0 m asl

No.	Date	Time	Channel 1	Dis(cm)	Dis(inch)
1500	05/21/01	15:58:38	356.5	0	0
1501	05/21/01	15:58:39	356.5	0	0
1502	05/21/01	15:58:40	371	-14.5	-5.708661
1503	05/21/01	15:58:41	354	2.5	0.984252
1504	05/21/01	15:58:42	350.5	6	2.362205
1505	05/21/01	15:58:43	339	17.5	6.889764
1506	05/21/01	15:58:44	300	56.5	22.24409
1507	05/21/01	15:58:45	300	56.5	22.24409
1508	05/21/01	15:58:46	310.5	46	18.11024
1509	05/21/01	15:58:47	314	42.5	16.73228
1510	05/21/01	15:58:48	316.5	40	15.74803
1511	05/21/01	15:58:49	319	37.5	14.76378
1512	05/21/01	15:58:50	324	32.5	12.79528
1513	05/21/01	15:58:51	324	32.5	12.79528
1514	05/21/01	15:58:52	326.5	30	11.81102
1515	05/21/01	15:58:53	328	28.5	11.22047
1516	05/21/01	15:58:54	330	26.5	10.43307
1517	05/21/01	15:58:55	331.5	25	9.84252
1518	05/21/01	15:58:56	332.5	24	9.448819
1519	05/21/01	15:58:57	334.5	22	8.661417
1520	05/21/01	15:58:58	335.5	21	8.267717
1521	05/21/01	15:58:59	337	19.5	7.677165
1522	05/21/01	15:59:00	339.5	17	6.692913
1523	05/21/01	15:59:01	339.5	17	6.692913
1524	05/21/01	15:59:02	340.5	16	6.299213
1525	05/21/01	15:59:03	341.5	15	5.905512
1526	05/21/01	15:59:04	342	14.5	5.708661
1527	05/21/01	15:59:05	344	12.5	4.92126
1528	05/21/01	15:59:06	344	12.5	4.92126
1529	05/21/01	15:59:07	345	11.5	4.527559
1530	05/21/01	15:59:08	346	10.5	4.133858
1531	05/21/01	15:59:09	346	10.5	4.133858
1532	05/21/01	15:59:10	347.5	9	3.543307
1533	05/21/01	15:59:11	347.5	9	3.543307
1534	05/21/01	15:59:12	348	8.5	3.346457
1535	05/21/01	15:59:13	348.5	8	3.149606

ST

1.64

1.15

.82

.59

0.44

0.31

1536	05/21/01	15:59:14	349.5	7	2.755906
<del>1537</del>	<del>05/21/01</del>	<del>15:59:15</del>	<del>349.5</del>	<del>7</del>	<del>2.755906</del>
1538	05/21/01	15:59:16	350	6.5	2.559055
1539	05/21/01	15:59:17	350	6.5	2.559055
1540	05/21/01	15:59:18	351	5.5	2.165354
1541	05/21/01	15:59:19	351	5.5	2.165354
<del>1542</del>	<del>05/21/01</del>	<del>15:59:20</del>	<del>351</del>	<del>5</del>	<del>1.968504</del>
1543	05/21/01	15:59:21	351.5	5	1.968504
1544	05/21/01	15:59:22	351.5	5	1.968504
1545	05/21/01	15:59:23	352	4.5	1.771654
1546	05/21/01	15:59:24	353	3.5	1.377953
<del>1547</del>	<del>05/21/01</del>	<del>15:59:25</del>	<del>353</del>	<del>3.5</del>	<del>1.377953</del>
1548	05/21/01	15:59:26	353	3.5	1.377953
1549	05/21/01	15:59:27	353	3.5	1.377953
1550	05/21/01	15:59:28	353	3.5	1.377953
1551	05/21/01	15:59:29	353.5	3	1.181102
<del>1552</del>	<del>05/21/01</del>	<del>15:59:30</del>	<del>353.5</del>	<del>3</del>	<del>1.181102</del>
1553	05/21/01	15:59:31	353.5	3	1.181102
1554	05/21/01	15:59:32	353.5	3	1.181102
1555	05/21/01	15:59:33	354.5	2	0.787402
1556	05/21/01	15:59:34	354.5	2	0.787402
<del>1557</del>	<del>05/21/01</del>	<del>15:59:35</del>	<del>354.5</del>	<del>2</del>	<del>0.787402</del>
1558	05/21/01	15:59:36	354.5	2	0.787402
1559	05/21/01	15:59:37	354.5	2	0.787402
1560	05/21/01	15:59:38	354.5	2	0.787402
1561	05/21/01	15:59:39	354.5	2	0.787402
<del>1562</del>	<del>05/21/01</del>	<del>15:59:40</del>	<del>354.5</del>	<del>2</del>	<del>0.787402</del>
1563	05/21/01	15:59:41	354.5	2	0.787402
1564	05/21/01	15:59:42	354.5	2	0.787402
1565	05/21/01	15:59:43	354.5	2	0.787402
1566	05/21/01	15:59:44	355	1.5	0.590551
<del>1567</del>	<del>05/21/01</del>	<del>15:59:45</del>	<del>355</del>	<del>1.5</del>	<del>0.590551</del>
1568	05/21/01	15:59:46	355.5	1	0.393701
1569	05/21/01	15:59:47	355.5	1	0.393701
1570	05/21/01	15:59:48	355.5	1	0.393701
1571	05/21/01	15:59:49	355	1.5	0.590551
<del>1572</del>	<del>05/21/01</del>	<del>15:59:50</del>	<del>355.5</del>	<del>1</del>	<del>0.393701</del>
1573	05/21/01	15:59:51	355.5	1	0.393701
1574	05/21/01	15:59:52	355.5	1	0.393701
1575	05/21/01	15:59:53	355.5	1	0.393701
1576	05/21/01	15:59:54	355.5	1	0.393701
1577	05/21/01	15:59:55	355.5	1	0.393701
1578	05/21/01	15:59:56	355.5	1	0.393701
1579	05/21/01	15:59:57	356	0.5	0.19685
1580	05/21/01	15:59:58	355.5	1	0.393701
1581	05/21/01	15:59:59	355.5	1	0.393701
1582	05/21/01	16:00:00	356	0.5	0.19685
1583	05/21/01	16:00:01	355.5	1	0.393701
1584	05/21/01	16:00:02	356	0.5	0.19685

0.23

0.18

0.11

0.098

0.065

0.065

end 049

end - 1.25

0.082

# GRAIN SIZE DISTRIBUTION

Project No. 0200-001

Client Bhate Environmental

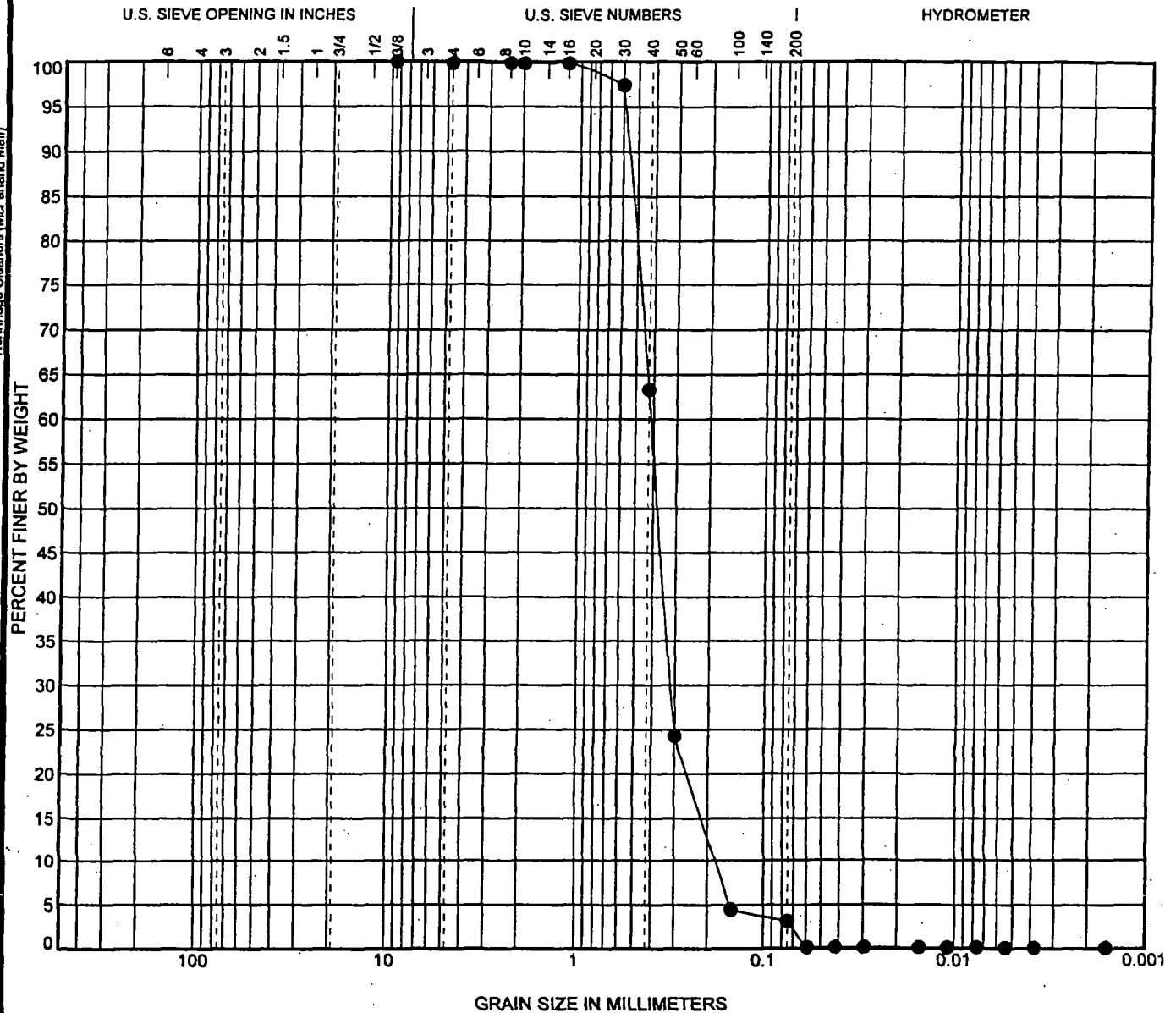
Project Northridge Cleaners (McFarland Mall)

Tuscaloosa, Alabama

Sampled by: Bhate Environmental

Sample Location: Tuscaloosa, Alabama

Date: 5/17/01



**SOIL SAMPLE  
ANALYSIS  
DATA  
7-25-97**

**BORINGS AND INTERVALS  
COLLECTED**

**SB-01 1' TO 3', 6 TO 8'**

**SB-02 1' TO 3', 6 TO 8'**

**SB-03 1' TO 3', 6 TO 8'**

**SPECIALIZED ASSAYS, INC.**

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

**ANALYTICAL REPORT****CLIENT ENGINEERING CORP. 5896****608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205****Sample ID: SB-01 1-3'****Project: 3970097****Project Name: CPC TUSCALOOSA****Sampler: MIKE SYKES****Site Certification:****Site I.D.:****Lab Number: 97-A061558****Date Collected: 7/25/97****Time Collected: 10:30****Date Received: 7/26/97****Time Received: 9:00****Sample Type: Soil**

**RECEIVED**  
**AUG 04 1997**

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
<b>VOLATILE ORGANICS*</b>										
Acetone	ND	ng/kg	0.0200	0.0100	2	7/28/97	3:33	S. Wani	8260A	8833
Benzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Bromobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Bromochloromethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Bromoform	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Bromomethane	ND	ng/kg	0.0200	0.0100	2	7/28/97	3:33	S. Wani	8260A	8833
Butanone	ND	ng/kg	0.0200	0.0100	2	7/28/97	3:33	S. Wani	8260A	8833
Butylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
sec-Butylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
n-Butylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Carbon Disulfide	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Carbon tetrachloride	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Chlorobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Chloroethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2-Chloroethylvinylether	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Chloroform	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Chloromethane	ND	ng/kg	0.0200	0.0100	2	7/28/97	3:33	S. Wani	8260A	8833
2-Chlorotoluene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1-Chlorotoluene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2-Dibromo-3-chloropropane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Dibromochloromethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2-Dibromoethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Bromomethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2-Dichlorobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,3-Dichlorobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,4-Dichlorobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Dichlorodifluoromethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,1-Dichloroethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833



## SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT


Laboratory Number: 97-A061558

Sample ID: SB-01 1-3'

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,1-Dichloroethene	1.250	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
cis-1,2-Dichloroethene	0.0480	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
trans-1,2-Dichloroethene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2-Dichloropropane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,3-Dichloropropane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
2,2-Dichloropropane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,1-Dichloropropene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
cis-1,3-Dichloropropene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
trans-1,3-Dichloropropene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Ethylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Hexachlorobutadiene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1-Hexanone	ND	ng/kg	0.0200	0.0100	2	7/28/97	3:33	S. Wani	8260A	8833
Isopropylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1-Isopropyltoluene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1-Methyl-2-pentanone	ND	ng/kg	0.0200	0.0100	2	7/28/97	3:33	S. Wani	8260A	8833
Methylene chloride	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Naphthalene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
n-Propylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Styrene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,1,1,2-Tetrachloroethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2,3,4-Tetrachloroethene	0.0340	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Toluene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2,3-Trichlorobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2,4-Trichlorobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,1,1-Trichloroethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,1,2-Trichloroethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2,3-Trichloroethene	0.0360	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2,3-Trichloropropane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,2,4-Trinethylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
1,3,5-Trinethylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Vinyl chloride	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Xylenes	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Monodichloromethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833
Trichlorofluoromethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	3:33	S. Wani	8260A	8833

ND = Not detected at the report limit.



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## ANALYTICAL REPORT

Laboratory Number: 97-A061558

Sample ID: SB-01 1-3'

Page 3

## \*\* SURROGATE RECOVERIES \*\*

<u>Surrogate</u>	<u>% Recovery</u>	<u>Target Range</u>
VDA Surrogate, 1,2-Dichloroethane, d4	103.	62. - 147.
VDA Surrogate, Toluene d8	100.	84. - 117.
VDA Surrogate, 4-Bromofluorobenzene	99.0	64. - 126.

Report Approved By:

Michael H. Dunn

Report Date: 7/31/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director

## SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

STATE ENGINEERING CORP. 5896

508 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-01 6-8'

Project: 3970097

Project Name: CPC TUSCALOOSA

Sampler: MIKE SYKES

Site Certification:

Site I.D.:

Lab Number: 97-A061559

Date Collected: 7/25/97

Time Collected: 10:50

Date Received: 7/26/97

Time Received: 9:00

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS*										
Acetone	ND	mg/kg	0.0200	0.0100	2	7/28/97	4:10	S. Wani	8260A	8833
Benzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Bromobenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Bromochloromethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Bromoform	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Bromomethane	ND	mg/kg	0.0200	0.0100	2	7/28/97	4:10	S. Wani	8260A	8833
Butanone	ND	mg/kg	0.0200	0.0100	2	7/28/97	4:10	S. Wani	8260A	8833
n-Butylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
sec-Butylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
n-Butylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Carbon Disulfide	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Carbon tetrachloride	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Chlorobenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Chloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,2-Chloroethylvinylether	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Chloroform	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Chloromethane	ND	mg/kg	0.0200	0.0100	2	7/28/97	4:10	S. Wani	8260A	8833
2-Chlorotoluene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
3-Chlorotoluene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Dibromochloromethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,2-Dibromoethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Dibromomethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,2-Dichlorobenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,3-Dichlorobenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,4-Dichlorobenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Dichlorodifluoromethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,1-Dichloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833

**SPECIALIZED ASSAYS, INC.**

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**ANALYTICAL REPORT**


Laboratory Number: 97-A061559

Sample ID: SB-01 6-8'

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,1-Dichloroethene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
cis-1,2-Dichloroethene	0.1580°	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
trans-1,2-Dichloroethene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,2-Dichloropropane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,3-Dichloropropane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
2,2-Dichloropropane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,1-Dichloropropene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
cis-1,3-Dichloropropene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
trans-1,3-Dichloropropene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Ethylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Hexachlorobutadiene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
2-Hexanone	ND	mg/kg	0.0200	0.0100	2	7/28/97	4:10	S. Wani	8260A	8833
Isopropylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
4-Isopropyltoluene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
4-Methyl-2-pentanone	ND	mg/kg	0.0200	0.0100	2	7/28/97	4:10	S. Wani	8260A	8833
Methylene chloride	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Naphthalene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
n-Propylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Styrene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Tetrachloroethene	0.0620	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Toluene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,2,3-Trichlorobenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,2,4-Trichlorobenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,1,1-Trichloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,1,2-Trichloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Trichloroethene	0.0720	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,2,3-Trichloropropane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,2,4-Trinethylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
1,3,5-Trinethylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Vinyl chloride	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Xylenes	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Bromodichloromethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833
Trichlorofluoromethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	4:10	S. Wani	8260A	8833

ND = Not detected at the report limit.



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## ANALYTICAL REPORT

Laboratory Number: 97-A061559

Sample ID: SB-01 6-8'

Page 3

## \*\* SURROGATE RECOVERIES \*\*

Surrogate	% Recovery	Target Range
UDA Surrogate, 1,2-Dichloroethane, d4	101.	62. - 147.
UDA Surrogate, Toluene d8	98.0	84. - 117.
UDA Surrogate, 4-Bromofluorobenzene	95.0	64. - 126.

Report Approved By:

Michael H. Dunn

Report Date: 7/31/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



## SPECIALIZED ASSAYS, INC.

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Phone 1-615-726-0177

## ANALYTICAL REPORT

HATE ENGINEERING CORP. 5896

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-02 1-3'

Project: 3970097

Project Name: CPC TUSCALOOSA

Sampler: MIKE SYKES

State Certification:

Site I. D.:

Lab Number: 97-A061560

Date Collected: 7/25/97

Time Collected: 11:45

Date Received: 7/26/97

Time Received: 9:00

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ng/kg	0.0100	0.0100	1	7/28/97	4:47	S. Wani	8260A	8833
Benzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Bromobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Bromochloromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Bromoform	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Bromomethane	ND	ng/kg	0.0100	0.0100	1	7/28/97	4:47	S. Wani	8260A	8833
2-Butanone	ND	ng/kg	0.0100	0.0100	1	7/28/97	4:47	S. Wani	8260A	8833
n-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
sec-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
t-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Carbon Disulfide	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Carbon tetrachloride	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Chlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Chloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
2-Chloroethylvinylether	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Chloroform	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Chloromethane	ND	ng/kg	0.0100	0.0100	1	7/28/97	4:47	S. Wani	8260A	8833
2-Chlorotoluene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
4-Chlorotoluene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2-Dibromo-3-chloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Dibromochloromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2-Dibromoethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Dibromomethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,3-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,4-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Dichlorodifluoromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833

## SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
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Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 97-A061560

Sample ID: SB-02 1-3'

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1-Dichloroethene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
cis-1,2-Dichloroethene	0.1750	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
trans-1,2-Dichloroethene	0.0020	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2-Dichloropropane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,3-Dichloropropane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
2,2-Dichloropropane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1-Dichloropropene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
cis-1,3-Dichloropropene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
trans-1,3-Dichloropropene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Ethylbenzene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Hexachlorobutadiene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
2-Hexanone	ND	mg/kg	0.0100	0.0100	1	7/28/97	4:47	S. Wani	8260A	8833
Isopropylbenzene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
4-Isopropyltoluene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
4-Methyl-2-pentanone	ND	mg/kg	0.0100	0.0100	1	7/28/97	4:47	S. Wani	8260A	8833
Methylene chloride	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Naphthalene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
n-Propylbenzene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Styrene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Tetrachloroethene	0.0520	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Toluene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,3-Trichlorobenzene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,4-Trichlorobenzene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,1-Trichloroethane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,2-Trichloroethane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Trichloroethene	0.0330	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,3-Trichloropropane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,4-Trimethylbenzene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,3,5-Trimethylbenzene	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Vinyl chloride	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8'
Xylenes	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	
Bromodichloromethane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	
Trichlorofluoromethane	ND	mg/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	

ND = Not detected at the report limit.

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## ANALYTICAL REPORT

Laboratory Number: 97-A061560

Sample ID: SB-02 1-3'

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Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
cis-1,2-Dichloroethene	0.1750	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
trans-1,2-Dichloroethene	0.0020	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,3-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
2,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
cis-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
trans-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Ethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Hexachlorobutadiene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
2-Hexanone	ND	ng/kg	0.0100	0.0100	1	7/28/97	4:47	S. Wani	8260A	8833
Isopropylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
4-Isopropyltoluene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
4-Methyl-2-pentanone	ND	ng/kg	0.0100	0.0100	1	7/28/97	4:47	S. Wani	8260A	8833
Methylene chloride	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Naphthalene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
n-Propylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Styrene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,1,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Tetrachloroethene	0.0520	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Toluene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,3-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,4-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,1-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,2-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Trichloroethene	0.0330	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,3-Trichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,4-Trimethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,3,5-Trimethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Vinyl chloride	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Xylenes	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Bromodichloromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Trichlorofluoromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833

ND = Not detected at the report limit.



## SPECIALIZED ASSAYS, INC.

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## ANALYTICAL REPORT

Laboratory Number: 97-A061560

Sample ID: SB-02 1-3'

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Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
cis-1,2-Dichloroethene	0.1750	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
trans-1,2-Dichloroethene	0.0020	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,3-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
2,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
cis-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
trans-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Ethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Hexachlorobutadiene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
2-Hexanone	ND	ng/kg	0.0100	0.0100	1	7/28/97	4:47	S. Wani	8260A	8833
Isopropylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
4-Isopropyltoluene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
4-Methyl-2-pentanone	ND	ng/kg	0.0100	0.0100	1	7/28/97	4:47	S. Wani	8260A	8833
Methylene chloride	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Naphthalene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
n-Propylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Styrene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,1,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Tetrachloroethene	0.0520	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Toluene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,3-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,4-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,1-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,1,2-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Trichloroethene	0.0330	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,3-Trichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,2,4-Trimethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
1,3,5-Trimethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Vinyl chloride	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Xylenes	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Bromodichloromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833
Trichlorofluoromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	4:47	S. Wani	8260A	8833

ND = Not detected at the report limit.

**SPECIALIZED ASSAYS, INC.**

2960 Foster Creighton Dr.  
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**ANALYTICAL REPORT**

Laboratory Number: 97-A061560

Sample ID: SB-02 1-3'

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**XX SURROGATE RECOVERIES XX**

<u>Surrogate</u>	<u>% Recovery</u>	<u>Target Range</u>
VDA Surrogate, 1,2-Dichloroethane, d4	105.	62. - 147.
VDA Surrogate, Toluene d8	98.0	84. - 117.
VDA Surrogate, 4-Bromofluorobenzene	98.0	64. - 126.

Report Approved By:

*Michael H. Dunn*

Report Date: 7/31/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



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## ANALYTICAL REPORT

Laboratory Number: 97-A061560  
Sample ID: SB-02 1-3'

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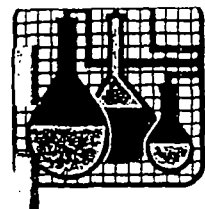
### \*\*\* SURROGATE RECOVERIES \*\*\*

<u>Surrogate</u>	<u>% Recovery</u>	<u>Target Range</u>
UDA Surrogate, 1,2-Dichloroethane, d4	105.	62. - 147.
UDA Surrogate, Toluene d8	98.0	84. - 117.
UDA Surrogate, 4-Bromofluorobenzene	98.0	64. - 126.

Report Approved By: Michael H. Dunn

Report Date: 7/31/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



## SPECIALIZED ASSAYS, INC.

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## ANALYTICAL REPORT

STATE ENGINEERING CORP. 5896

608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-02 6-8'

Project: 3970097

Project Name: CPC TUSCALOOSA

Sampler: MIKE SYKES

Site Certification:

Site I. D.:

Lab Number: 97-A061561

Date Collected: 7/25/97

Time Collected: 12:00

Date Received: 7/26/97

Time Received: 9:00

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS*										
Acetone	ND	ng/kg	0.0100	0.0100	1	7/28/97	5:24	S. Wani	8260A	8833
Benzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Bromobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Bromochloromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Bromoform	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Bromomethane	ND	ng/kg	0.0100	0.0100	1	7/28/97	5:24	S. Wani	8260A	8833
2-Butanone	ND	ng/kg	0.0100	0.0100	1	7/28/97	5:24	S. Wani	8260A	8833
n-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
sec-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
n-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Carbon Disulfide	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Carbon tetrachloride	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Chlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Chloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
2-Chloroethylvinylether	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Chloroform	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Chloromethane	ND	ng/kg	0.0100	0.0100	1	7/28/97	5:24	S. Wani	8260A	8833
2-Chlorotoluene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
4-Chlorotoluene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,2-Dibromo-3-chloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Dibromochloromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,2-Dibromoethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Dibromomethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,2-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,3-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,4-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Dichlorodifluoromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,1-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833

## ANALYTICAL REPORT

Laboratory Number: 97-A061561

Sample ID: SB-02 6-8'

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Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,1-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
cis-1,2-Dichloroethene	0.0170	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
trans-1,2-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,3-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
2,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,1-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
cis-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
trans-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Ethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Hexachlorobutadiene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
2-Hexanone	ND	ng/kg	0.0100	0.0100	1	7/28/97	5:24	S. Wani	8260A	8833
Isopropylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
4-Isopropyltoluene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
4-Methyl-2-pentanone	ND	ng/kg	0.0100	0.0100	1	7/28/97	5:24	S. Wani	8260A	8833
Methylene chloride	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Naphthalene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
n-Propylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Styrene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,1,1,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Tetrachloroethene	0.0120	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Toluene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,2,3-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,2,4-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,1,1-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,1,2-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Trichloroethene	0.0040	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,2,3-Trichloropropane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,2,4-Trimethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
1,3,5-Trimethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Vinyl chloride	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Xylenes	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Bromodichloromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833
Trichlorofluoromethane	ND	ng/kg	0.0020	0.0020	1	7/28/97	5:24	S. Wani	8260A	8833

ND = Not detected at the report limit.



# SPECIALIZED ASSAYS, INC.

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## ANALYTICAL REPORT

Laboratory Number: 97-A061561

Sample ID: SB-02 6-8'

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### \*\* SURROGATE RECOVERIES \*\*

<u>Surrogate</u>	<u>% Recovery</u>	<u>Target Range</u>
HA Surrogate, 1,2-Dichloroethane, d4	104.	62. - 147.
UDA Surrogate, Toluene d8	99.0	84. - 117.
UDA Surrogate, 4-Bromofluorobenzene	96.0	64. - 126.

Report Approved By:

Michael H. Dunn

Report Date: 7/31/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



## SPECIALIZED ASSAYS, INC.

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## ANALYTICAL REPORT

STATE ENGINEERING CORP. 5896

608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-03 1-3'

Project: 3970097

Project Name: CPC TUSCALOOSA

Sampler: MIKE SYKES

Date Certification:

Site I.D.:

Lab Number: 97-A061562

Date Collected: 7/25/97

Time Collected: 12:30

Date Received: 7/26/97

Time Received: 9:00

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ng/kg	0.0200	0.0100	2	7/28/97	6:01	S. Wani	8260A	8833
Benzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Bromobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Bromochloromethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Bromoform	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Bromomethane	ND	ng/kg	0.0200	0.0100	2	7/28/97	6:01	S. Wani	8260A	8833
2-Butanone	ND	ng/kg	0.0200	0.0100	2	7/28/97	6:01	S. Wani	8260A	8833
n-Butylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
sec-Butylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
t-Butylbenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Carbon Disulfide	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Carbon tetrachloride	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Chlorobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Chloroethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
2-Chloroethylvinylether	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Chloroform	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Chloromethane	ND	ng/kg	0.0200	0.0100	2	7/28/97	6:01	S. Wani	8260A	8833
2-Chlorotoluene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
4-Chlorotoluene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,2-Dibromo-3-chloropropane	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Dibromochloromethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,2-Dibromoethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Dibromomethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,2-Dichlorobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,3-Dichlorobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,4-Dichlorobenzene	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Dichlorodifluoromethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,1-Dichloroethane	ND	ng/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833



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## ANALYTICAL REPORT

Laboratory Number: 97-A061562

Sample ID: SB-03 1-3'

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Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,1-Dichloroethene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
cis-1,2-Dichloroethene	0.0340	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
trans-1,2-Dichloroethene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,2-Dichloropropane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,3-Dichloropropane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
2,2-Dichloropropane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,1-Dichloropropene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
cis-1,3-Dichloropropene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
trans-1,3-Dichloropropene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Ethylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Hexachlorobutadiene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
2-Hexanone	ND	mg/kg	0.0200	0.0100	2	7/28/97	6:01	S. Wani	8260A	8833
Isopropylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
4-Isopropyltoluene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
4-Methyl-2-pentanone	ND	mg/kg	0.0200	0.0100	2	7/28/97	6:01	S. Wani	8260A	8833
Methylene chloride	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Naphthalene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
n-Propylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Styrene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Tetrachloroethene	1.540	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Toluene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,2,3-Trichlorobenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,2,4-Trichlorobenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,1,1-Trichloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,1,2-Trichloroethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Trichloroethene	0.1980	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,2,3-Trichloropropane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,2,4-Trimethylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
1,3,5-Trimethylbenzene	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Vinyl chloride	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Xylenes	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Bromodichloromethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833
Trichlorofluoromethane	ND	mg/kg	0.0040	0.0020	2	7/28/97	6:01	S. Wani	8260A	8833

ND = Not detected at the report limit.



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ANALYTICAL REPORT

Laboratory Number: 97-A061562  
Sample ID: SB-03 1-3'

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XX SURROGATE RECOVERIES XX

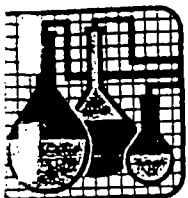
<u>Surrogate</u>	<u>% Recovery</u>	<u>Target Range</u>
VDA Surrogate, 1,2-Dichloroethane, d4	101.	62. - 147.
VDA Surrogate, Toluene d8	99.0	84. - 117.
VDA Surrogate, 4-Bromofluorobenzene	95.0	64. - 126.

Report Approved By:

Michael H. Dunn

Report Date: 7/31/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



# SPECIALIZED ASSAYS, INC.

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## ANALYTICAL REPORT

STATE ENGINEERING CORP. 5896

1313 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-03 6-8'

Project: 3970097

Project Name: CPC TUSCALOOSA

Sampler: MIKE SYKES

State Certification:

File I. D.:

Lab Number: 97-A061563

Date Collected: 7/25/97

Time Collected: 13:00

Date Received: 7/26/97

Time Received: 9:00

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ng/kg	0.0100	0.0100	1	7/29/97	3:02	S. Wani	8260A	8833
Benzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Bromobenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Bromochloromethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Bromoform	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Bromomethane	ND	ng/kg	0.0100	0.0100	1	7/29/97	3:02	S. Wani	8260A	8833
2-Butanone	ND	ng/kg	0.0100	0.0100	1	7/29/97	3:02	S. Wani	8260A	8833
n-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
sec-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
t-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Carbon Disulfide	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Carbon tetrachloride	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Chlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Chloroethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
2-Chloroethylvinylether	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Chloroform	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Chloromethane	ND	ng/kg	0.0100	0.0100	1	7/29/97	3:02	S. Wani	8260A	8833
2-Chlorotoluene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
4-Chlorotoluene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,2-Dibromo-3-chloropropane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Dibromochloromethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,2-Dibromoethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Dibromomethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,2-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,3-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,4-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Dichlorodifluoromethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,1-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833



## SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 97-A061563  
Sample ID: SB-03 6-B'

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,1-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
cis-1,2-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
trans-1,2-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,3-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
2,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,1-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
cis-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
trans-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Ethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Hexachlorobutadiene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
2-Hexanone	ND	ng/kg	0.0100	0.0100	1	7/29/97	3:02	S. Wani	8260A	8833
Isopropylbenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
4-Isopropyltoluene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
4-Methyl-2-pentanone	ND	ng/kg	0.0100	0.0100	1	7/29/97	3:02	S. Wani	8260A	8833
Methylene chloride	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Naphthalene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
n-Propylbenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Styrene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,1,1,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Tetrachloroethene	0.0100	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Toluene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,2,3-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,2,4-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,1,1-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,1,2-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Trichloroethene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,2,3-Trichloropropane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,2,4-Trinethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
1,3,5-Trinethylbenzene	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Vinyl chloride	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Xylenes	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Bromodichloromethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833
Trichlorofluoromethane	ND	ng/kg	0.0020	0.0020	1	7/29/97	3:02	S. Wani	8260A	8833

ND = Not detected at the report limit.



# SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
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## ANALYTICAL REPORT

Laboratory Number: 97-A061563  
Sample ID: SB-03 6-8'

Page 3

### XX SURROGATE RECOVERIES XX

Surrogate	% Recovery	Target Range
UDA Surrogate, 1,2-Dichloroethane, d4	104.	62. - 147.
UDA Surrogate, Toluene d8	98.0	84. - 117.
UDA Surrogate, 4-Bromofluorobenzene	96.0	64. - 126.

Report Approved By:

*Michael H. Dunn*

Report Date: 7/31/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

## CHAIN-OF-CUSTODY

No.: 0000

Page: 1 of 1

Quote: CPC-724975.B20

PROJECT NO.: 3970097 PROJECT NAME: CPC TUSCALOOSA

P.O. NO.: 32971687 LAB DESTINATION: Specialized Assays

SAMPLER(S) NAME: RON HENDERSON, Mike Sykes

TITLE:

Lab Code - for Lab use only	Yr. Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL WATER SOLID OTHER NON-AQUEOUS LIQUID	No.	Volume	Type	TEST METHOD: YES	TEST METHOD:	TEST METHOD:	TEST METHOD:	TEST METHOD:	TEST METHOD:	REMARKS
6/558	7/25	10:30		X	SB-01 1'-3'	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1	16oz	G	<input checked="" type="checkbox"/>						1'-3' depth
559	7/25	10:50		X	SB-01 6'-8'	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1	16oz	G	<input checked="" type="checkbox"/>						6'-8' depth
560	7/25	11:45		X	SB-02 1'-3'	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1	16oz	G	<input checked="" type="checkbox"/>						1'-3' depth
561	7/25	12:00		X	SB-02 6'-8'	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1	8oz	G	<input checked="" type="checkbox"/>						6'-8' depth
562	7/25	12:30		X	SB-03 1'-3' + 6'-8'	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1	8oz	G	<input checked="" type="checkbox"/>						1'-3' depth
6/563	7/25	1:00		X	SB-03 6'-8'	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1	16oz	G	<input checked="" type="checkbox"/>						6'-8' depth
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										

Relinquished by: (Signature): Michael Sykes	Date:	Time:	Received by: (Signature):	Date:	Time:	LAB COMMENTS		
	7/25/17	4:10						
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:	REMARKS ON SAMPLE RECEIVED BY LAB:	SAMPLE SHIPPING METHOD	SAMPLE CONTAINER TYPE
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:	Bottle Intact: <input type="checkbox"/> Preserved: <input type="checkbox"/> Chilled: <input type="checkbox"/> Other: <input type="checkbox"/>	Hand Delivery <input type="checkbox"/> Air (specify) <input type="checkbox"/> Other (specify) <input type="checkbox"/>	P = Plastic G = Glass GA = Glass Amber

# CHAIN-OF-CUSTODY

NO.: 00001

Page: 1 of 1

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

Quote: CPC-724975B20

PROJECT NO.: 3970097 PROJECT NAME: CPC TUSCALOOSA

P.O. NO.: 32971687 LAB DESTINATION: SPECIALIZED ASSAYS

SAMPLER(s) NAME: RON HENDERSON, MIKE SYKES

TITLE:

Lab Code - for Lab Use only	Yr. 97	Date 7/25	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: METHOD: VOC 238248260	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
	7/25	10:30		X		SB-01 1'-3'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	16oz	G	✓						1'-3' depth
	7/25	10:50		X		SB-01 6'-8'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	16oz	G	✓						6'-8' depth
	7/25	11:45		X		SB-02 1'-3'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	16oz	G	✓						1'-3' depth
	7/25	12:00		X		SB-02 6'-8'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	8oz	G	✓						6'-8' depth
	7/25	12:30		X		SB-03 1'-3' + 1'-8' ms	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	8oz	G	✓						1'-3' depth
	7/25	1:00		X		SB-03 6'-8'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	16oz	G	✓						6'-8' depth
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										

Relinquished by: (Signature): MICHAEL MICHAEL SYKES	Date: 7/25/97	Time: 4:10	Received by: (Signature):	Date:	Time:	LAB COMMENTS	
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:		
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:		
			REMARKS ON SAMPLE RECEIVED BY LAB:			SAMPLE SHIPPING METHOD	SAMPLE CONTAINER TYPE
			Bottle Intact: <input type="checkbox"/>			Hand Delivery <input type="checkbox"/>	P = Plastic
			Preserved: <input type="checkbox"/>			Air (specify) <input type="checkbox"/>	G = Glass
			Chilled: <input type="checkbox"/>			Other (specify) <input type="checkbox"/>	CA = Glass Amber
			Other: <input type="checkbox"/>				

**SOIL SAMPLE  
ANALYSIS  
DATA  
8-12-97**

**MONITORING WELLS COLLECTED, AND  
BORINGS AND INTERVALS COLLECTED**

**SB-04 3' TO 5', 23 TO 25'**

**SB-05 3' TO 5', 13 TO 15'**

**SB-06 3' TO 5', 13 TO 15'**

**SB-06 3' TO 5, 8' TO 10, 13 TO 15'**

**SB-07 3' TO 5, 8' TO 10', 13 TO 15'**

**TMW-01**

**TMW-02**

**TMW-03**

**TMW-04**



# SPECIALIZED ASSAYS, INC.

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Nashville, TN 37204-0566  
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RECEIVED

AUG 25 1997

## ANALYTICAL REPORT

HATE ENGINEERING CORP. 5876

108 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: 58-4 3-5

Project: 3970097

Project Name: NORTHINGTON DRY CLEANERS

Supplier: RWH

State Certification:

Site I.D.:

Lao Number: 97-A067487

Date Collected: 8/12/97

Time Collected:

Date Received: 8/14/97

Time Received: 8:30

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS by GC										
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromoform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromomethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
2-Chloroethylvinylether	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Vinyl chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Tetrachloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Trichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385



# SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
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Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 97-A067487

Sample ID: SB-4 3-5

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

ND = Not detected at the report limit.

### \*\* SURROGATE RECOVERIES \*\*

Surrogate	% Recovery	Target Range
PID Surr., a,a,a-trifluorotoluene	92.	50. - 150.
Wall Surr., chloroprene	86.	56. - 118.
Wall Surr., 1-chloro-3-fluorobenzene	70.	52. - 116.

Report Approved By:

Report Date: 8/19/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



# SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

STATE ENGINEERING CORP. 5896

108 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-5 3-3

Project: 3970097

Project Name: NORTINGTON DRY CLEANERS

Sampler: RWH

Date Certification:

Site I. D. :

Lab Number: 97-A067488

Date Collected: 8/12/97

Time Collected:

Date Received: 8/14/97

Time Received: 8:30

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
*VOLATILE ORGANICS by GC*										
Chlorobenzene	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichlorobenzene	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
1,3-Dichlorobenzene	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
1,4-Dichlorobenzene	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Bromodichloromethane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Bromoform	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Bromomethane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Carbon tetrachloride	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Chloroethane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
2-Chloroethylvinylether	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Chloroform	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Chloromethane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Dibromochloromethane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Vinyl chloride	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloroethane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethene	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
cis-1,2-Dichloroethene	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
trans-1,2-Dichloroethene	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloropropane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
cis-1,3-Dichloropropene	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
trans-1,3-Dichloropropene	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Methylene chloride	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Tetrachloroethene	0.3120	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
1,1,1-Trichloroethane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
1,1,2-Trichloroethane	ND	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385
Trichloroethene	0.0610	ng/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385

**SPECIALIZED ASSAYS, INC.**

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

**ANALYTICAL REPORT**

Laboratory Number: 97-A067488

Sample ID: SB-5 3-5

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/kg	0.0100	0.0010	10	8/18/97	22:08	E. Smith	8021	4385

ND = Not detected at the report limit.

## \*\* SURROGATE RECOVERIES \*\*

Surrogate	% Recovery	Target Range
PID Surr., a,a,a-trifluorotoluene	101.	50. - 150.
Hall Surr., chloroprene	101.	56. - 118.
Hall Surr., 1-chloro-3-fluorobenzene	88.	52. - 116.

Report Approved By:

Report Date: 8/19/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



# SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

STATE ENGINEERING CORP. 5896

108 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-4 23-25

Project: 3970097

Project Name: NORTHTON DRY CLEANERS

Sampler: RWH

State Certification:

Site I. D. :

Lab Number: 97-A067489

Date Collected: 8/12/97

Time Collected:

Date Received: 8/14/97

Time Received: 8:30

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
*VOLATILE ORGANICS by GC*										
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromoform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromomethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
2-Chloroethylvinylether	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Vinyl chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Tetrachloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Trichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

**SPECIALIZED ASSAYS, INC.**

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**ANALYTICAL REPORT**

Laboratory Number: 97-A067489

Sample ID: SB-4 23-25

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

ND = Not detected at the report limit.

**\*\* SURROGATE RECOVERIES \*\***

Surrogate	% Recovery	Target Range
PID Surr., a,a,a-trifluorotoluene	100.	50. - 150.
Hall Surr., chloroprene	102.	56. - 118.
Hall Surr., 1-chloro-3-fluorobenzene	92.	52. - 116.

Report Approved By:

Report Date: 8/19/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



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## ANALYTICAL REPORT

DATE ENGINEERING CORP. 5896

408 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-5 13-15

Project: 3970097

Project Name: NORTHINGTON DRY CLEANERS

Sampler: RWH

State Certification:

State I.D.:

Lab Number: 97-A067490

Date Collected: 8/12/97

Time Collected:

Date Received: 8/14/97

Time Received: 8:30

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
*VOLATILE ORGANICS by GC*										
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromoform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromomethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
2-Chloroethylvinylether	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Vinyl chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethene	0.0010	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,2-Dichloroethene	0.0014	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Tetrachloroethene	0.0050	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Trichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

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**ANALYTICAL REPORT**

Laboratory Number: 97-A067490

Sample ID: SB-5 13-15

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

ND = Not detected at the report limit.

**\*\* SURROGATE RECOVERIES \*\***

Surrogate	% Recovery	Target Range
PID Surr., a,a,a-trifluorotoluene	99.	50. - 150.
Hall Surr., chloroprene	96.	56. - 118.
Hall Surr., 1-chloro-3-fluorobenzene	79.	52. - 116.

Report Approved By:

Report Date: 8/19/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
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## ANALYTICAL REPORT

STATE ENGINEERING CORP. 5896

108 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-6 3-5

Project: 3970097

Project Name: NORTHINGTON DRY CLEANERS

Sampler: RWH

State Certification:

Date I. D.:

Lab Number: 97-A067491

Date Collected: 8/12/97

Time Collected:

Date Received: 8/14/97

Time Received: 8:30

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
*VOLATILE ORGANICS by GC*										
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromoform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromomethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
2-Chloroethylvinylether	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Vinyl chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethene	0.0024	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,2-Dichloroethene	0.0172	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Tetrachloroethene	0.0064	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Trichloroethene	0.0092	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

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**ANALYTICAL REPORT**

Laboratory Number: 97-A067491

Sample ID: SB-6 3-5

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

ND = Not detected at the report limit.

**\*\* SURROGATE RECOVERIES \*\***

Surrogate	% Recovery	Target Range
FID Surr., a,a,a-trifluorotoluene	98.	50. - 150.
Hall Surr., chloroprene	97.	56. - 118.
Hall Surr., 1-chloro-3-fluorobenzene	81.	52. - 116.

Report Approved By:

Report Date: 8/19/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



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## ANALYTICAL REPORT

LATE ENGINEERING CORP. 5896

108 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-6 B-10

Project: 3970097

Project Name: NORTHINGTON DRY CLEANERS

Sampler: RWH

State Certification:

Site I.D.:

Lab Number: 97-A067492

Date Collected: 8/12/97

Time Collected:

Date Received: 8/14/97

Time Received: 8:30

Sample Type: Soil

### TCLP Results

Analyte	Result	Units	Matrix Spike		Date	Method
			Reg Limit	Recovery (%)		

ND = Not detected at the report limit.

Report Approved By: \_\_\_\_\_ Report Date: 8/19/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director

**SPECIALIZED ASSAYS, INC.**

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Nashville, TN 37204-0566  
Phone 1-615-726-0177

**ANALYTICAL REPORT****HITE ENGINEERING CORP. 5896****208 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205****Sample ID: SB-6 13-15****Subject: 3970097****Subject Name: NORTHINGTON DRY CLEANERS****Sampler: RWH****Site Certification:****Site I. D.:****Lab Number: 97-A067493****Date Collected: 8/12/97****Time Collected:****Date Received: 8/14/97****Time Received: 8:30****Sample Type: Soil**

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS by GC*										
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromoform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromomethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
2-Chloroethylvinylether	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Vinyl chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethene	0.0050	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,2-Dichloroethene	0.0016	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Tetrachloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Trichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

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**ANALYTICAL REPORT**

Laboratory Number: 97-A067493  
Sample ID: SB-6 13-15

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

ND = Not detected at the report limit.

**\*\* SURROGATE RECOVERIES \*\***

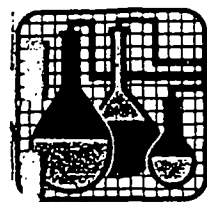
Surrogate	% Recovery	Target Range
FID Surr., a,a,a-trifluorotoluene	98.	50. - 150.
Hall Surr., chloroprene	104.	56. - 118.
Hall Surr., 1-chloro-3-fluorobenzene	87.	52. - 116.

Report Approved By:

*Theodore J. Duello*

Report Date: 8/19/97

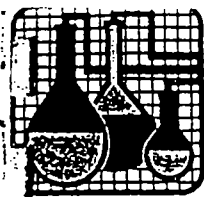
Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director

**SPECIALIZED ASSAYS, INC.**

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Phone 1-615-726-0177

**ANALYTICAL REPORT****STATE ENGINEERING CORP. 5896****408 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205****Lab Number: 97-A067494****Sample ID: SB-7 3-5****Date Collected: 8/12/97****Project: 3970097****Time Collected:****Project Name: NORTINGTON DRY CLEANERS****Date Received: 8/14/97****Sampler: RWH****Time Received: 8:30****State Certification:****Sample Type: Soil****Site I.D.:**

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
*VOLATILE ORGANICS by GCx										
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromoform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromomethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
2-Chloroethylvinylether	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Vinyl chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethene	0.0010	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,2-Dichloroethene	0.0141	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Tetrachloroethene	0.0140	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Trichloroethene	0.0025	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

**SPECIALIZED ASSAYS, INC.**

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

**ANALYTICAL REPORT**

Laboratory Number: 97-A067494

Sample ID: SB-7 3-5

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

ND = Not detected at the report limit.

**\*\* SURROGATE RECOVERIES \*\***

Surrogate	% Recovery	Target Range
PID Surr., a,a,a-trifluorotoluene	98.	50. - 150.
Hall Surr., chloroprene	99.	56. - 118.
Hall Surr., 1-chloro-3-fluorobenzene	83.	52. - 116.

Report Approved By:

Report Date: 8/19/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



# SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

STATE ENGINEERING CORP. 5896

105 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-7 8-10

Project: 3970097

Project Name: NORTINGTON DRY CLEANERS

Sampler: RWH

State Certification:

Site I.D.:

Lab Number: 97-A067495

Date Collected: 8/12/97

Time Collected:

Date Received: 8/14/97

Time Received: 8:30

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
*VOLATILE ORGANICS by GC*										
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Bromoform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Bromomethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Chloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
2-Chloroethylvinylether	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Chloroform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Chloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Vinyl chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
1,1-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
cis-1,2-Dichloroethene	0.0043	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Tetrachloroethene	0.0075	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385
Trichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E.Smith	8021	4385

**SPECIALIZED ASSAYS, INC.**

2960 Foster Creighton Dr.  
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Phone 1-615-726-0177

**ANALYTICAL REPORT**

Laboratory Number: 97-A067495

Sample ID: SB-7 8-10

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

ND = Not detected at the report limit.

**\*\* SURROGATE RECOVERIES \*\***

Surrogate	% Recovery	Target Range
PID Surr., a,a,a-trifluorotoluene	99.	50. - 150.
Hall Surr., chloroprene	101.	56. - 118.
Hall Surr., 1-chloro-3-fluorobenzene	85.	52. - 116.

Report Approved By:

Report Date: 8/19/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



## SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

SITE ENGINEERING CORP. 5896

108 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Sample ID: SB-7 13-15

Subject: 3970097

Subject Name: NORTHINGTON DRY CLEANERS

Sampler: RWH

Site Certification:

Site I. D.:

Lab Number: 97-A067496

Date Collected: 8/12/97

Time Collected:

Date Received: 8/14/97

Time Received: 8:30

Sample Type: Soil

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS by GCx										
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromoform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Bromomethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloroform	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Chloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Vinyl chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,2-Dichloroethene	0.0023	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Tetrachloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385
Trichloroethene	ND	ng/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

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Phone 1-615-726-0177

**ANALYTICAL REPORT**

Laboratory Number: 97-A067496

Sample ID: SB-7 13-15

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichlorofluoromethane	ND	mg/kg	0.0010	0.0010	1	8/18/97	22:08	E. Smith	8021	4385

ND = Not detected at the report limit.

**XX SURROGATE RECOVERIES XX**

Surrogate	% Recovery	Target Range
ID Surr., a,a,a-trifluorotoluene	100.	50. - 150.
all Surr., chloroprene	92.	56. - 118.
all Surr., 1-chloro-3-fluorobenzene	83.	52. - 116.

Report Approved By:

Report Date: 8/19/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director

## CHAIN-OF-CUSTODY

Page:      of     

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

5896

75959

PROJECT NO.: 3970097		PROJECT NAME: Northridge Dry Cleaners		CONTAINERS		TEST: METHOD: VOC						Preserved (Code)						
P.O. NO.:		LAB DESTINATION: Specified										Iced (yes/no)						
SAMPLER(S) NAME: RWH												Code: A - None B - HNO3 C - H2SO4 D - NaOH E - HCl F -						
TITLE:												REMARKS						
Lab Code - for Lab. use only	Yr. Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: METHOD: VOC	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	
67487	8/12/97			X	SB-4 3-5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1		P	X					
	8/12/97				SB-4 8-10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
	8/12/97				SB-4 13-15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
	8/12/97				SB-4 18-20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
67488	8/12/97				SB-4 23-25	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
67488	8/12/97				SB-4 3-5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
	8/12/97				SB-4 8-10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
67490	8/12/97				SB-4 13-15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
67491	8/12/97				SB-6 3-5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
67492	8/12/97				SB-6 8-10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									

Relinquished by: (Signature): <u>RWH</u>	Date: <u>8/13/97</u>	Time: <u>4:15</u>	Received by: (Signature): <u>CBD</u>	Date: <u>8/14/97</u>	Time: <u>8:30</u>	LAB COMMENTS <u>Analyze those marked *</u> <u>Hold Rest</u>		
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:	REMARKS ON SAMPLE RECEIVED BY LAB:	SAMPLE SHIPPING METHOD	SAMPLE CONTAINER TYPE
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:	Bottle Intact: <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	P = Plastic
						Preserved: <input type="checkbox"/>	Air (specify) <input type="checkbox"/>	G = Glass
						Chilled: <input type="checkbox"/>	Other (specify) <input type="checkbox"/>	GA = Glass Amber
						Other: <input type="checkbox"/>		

# CHAIN-OF-CUSTODY

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

PROJECT NO.: <u>3970097</u>		PROJECT NAME: <u>Northington Day Cleanups</u>		CONTAINERS		A		E		Preserved (Code)			
P.O. NO.:		LAB DESTINATION: <u>Specialized</u>				Y		Y		Iced (yes/no)			
SAMPLER(S) NAME:						TEST: METHOD: <u>8010 VOC</u>		TEST: METHOD: <u>8010 VOC</u>		Code: A - None B - HN03 C - H2SO4 D - NaOH E - HCl F -			
TITLE:						TEST: METHOD: <u>VOC</u>		TEST: METHOD:		TEST: METHOD:			
Lab Code - (for Lab use only)	Yr. Date	Time	Comp	APG	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	REMARKS
<u>67493</u>	<u>8/12/97</u>			X	<u>SB-6 13-15</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>	<u>P</u>	<u>X</u>	<u>*</u>
<u>67494</u>	<u>8/12/97</u>			X	<u>SB-17 7-5</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<u>*</u>
<u>67495</u>	<u>8/12/97</u>			X	<u>SB-07 8-10</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<u>*</u>
<u>67496</u>	<u>8/12/97</u>			X	<u>SB-17 13-15</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<u>*</u>
<u>67497</u>	<u>8/12/97</u>			X	<u>MW-4 mw-1</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>2</u>	<u>40 ml</u>	<u>G</u>	<u>*</u>
<u>67498</u>	<u>8/14/97</u>			X	<u>MW-5 2</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<u>*</u>
<u>67499</u>	<u>8/14/97</u>			X	<u>MW-6 3</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<u>*</u>
<u>67500</u>	<u>8/12/97</u>			X	<u>MW-7 4</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<u>*</u>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

Relinquished by: (Signature): <u>Ron Henderson</u>	Date: <u>8/13/97</u>	Time: <u>4:15</u>	Received by: (Signature):	Date:	Time:	LAB COMMENTS <u>Analyze those marked *</u> <u>Hold Rest</u>
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:	
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature): <u>CBB</u>	Date: <u>8/14/97</u>	Time: <u>8:30</u>	REMARKS ON SAMPLE RECEIVED BY LAB:
						Bottle Intact: <input type="checkbox"/> Preserved: <input type="checkbox"/> Chilled: <input type="checkbox"/> Other: <input type="checkbox"/>
						SAMPLE SHIPPING METHOD Hand Delivery <input type="checkbox"/> Air (specify) <input type="checkbox"/> Other (specify) <input type="checkbox"/>
						SAMPLE CONTAINER TYPE P = Plastic G = Glass GA = Glass Amber

## CHAIN-OF-CUSTODY

Page: 2 of 2

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

PROJECT NO.: 3770097		PROJECT NAME: Northington Day Cleaners		CONTAINERS		A		E		Preserved (Code)	
P.O. NO.:		LAB DESTINATION: Specified				Y		Y		Iced (yes/no)	
SAMPLER(s) NAME:						TEST: Method: 2010 VOC		TEST: Method: 8010 VOC		TEST: Method: YUC	
TITLE:						TEST: Method:		TEST: Method:		TEST: Method:	
Lab Code - for Lab Use only	Yr. Date	Time	Comp	Sub	Sample No./ Sample Location	SOL	WATER	SOLID	OTHER	NON-AQUEOUS	LIQUID
	8/12/97			X	SB-16 13-15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	8/12/97			X	SB-17 7-5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	8/12/97			X	SB-17 8-10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	8/12/97			X	SB-17 13-15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	8/12/97			X	MW-4 MW-1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	8/12/97			X	MW-5 MW-2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	8/12/97			X	MW-6 MW-3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	8/12/97			X	MW-7 MW-4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Relinquished by: (Signature): K. Henderson	Date: 8/15/97	Time: 4:15	Received by: (Signature):	Date:	Time:	LAB COMMENTS Analyze those marked * Hold Rest
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:	
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:	
REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE		
Bottle Intact: <input type="checkbox"/>		Hand Delivery <input type="checkbox"/>		P = Plastic		
Preserved: <input type="checkbox"/>		Air (specify) <input type="checkbox"/>		G = Glass		
Chilled: <input type="checkbox"/>		Other (specify) <input type="checkbox"/>		GA = Glass Amber		
Other: <input type="checkbox"/>						

## CHAIN-OF-CUSTODY

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

PROJECT NO.: 3970097 PROJECT NAME: Northgate Dry Cleaners

P.O. NO.: LAB DESTINATION: Specified

SAMPLER(S) NAME: RW H

TITLE:

CONTAINERS

Preserved (Code)

Iced (yes/no)

Code: A - None  
B - HNO3  
C - H2SO4  
D - NaOH  
E - HCl  
F -

Lab Code - for Lab use only	Yr. Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL WATER SOLID OTHER NON-AQUEOUS LIQUID	No.	Volume	Type	TEST METHOD: 8010	TEST METHOD: VOL	TEST METHOD:	TEST METHOD:	TEST METHOD:	TEST METHOD:	REMARKS
	8/12/97			Y	SB-4 3-5	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1		P	X						
	8/12/97				SB-4 8-10	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
	8/12/97				SB-4 13-15	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
	8/12/97				SB-4 18-20	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
	8/12/97				SB-4 23-25	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
	8/12/97				SB-5 3-5	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
	8/12/97	1435			SB-5 8-10	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
	8/12/97	1455			SB-5 13-15	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
	8/12/97				SB-6 3-5	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
	8/12/97				SB-6 8-10	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										

Relinquished by: (Signature): <i>RW Henderson</i>	Date: 8/13/97 Time: 4:15	Received by: (Signature):	Date:	Time:	LAB COMMENTS Analyze those Marked * Hold Rest			
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:		Time:		
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:	REMARKS ON SAMPLE RECEIVED BY LAB:	SAMPLE SHIPPING METHOD	SAMPLE CONTAINER TYPE
						Bottle Intact: <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	P = Plastic
						Preserved: <input type="checkbox"/>	Air (specify) <input type="checkbox"/>	G = Glass
						Chilled: <input type="checkbox"/>	Other (specify) <input type="checkbox"/>	GA = Glass Amber
						Other: <input type="checkbox"/>		

**SOIL SAMPLE  
ANALYSIS  
DATA  
10-15-97**

**BORINGS AND INTERVALS  
COLLECTED**

**SB-08 8' TO 10'  
SB-09 8' TO 10'  
SB-10 8' TO 10'  
SB-11 8' TO 10'**



## SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

RECEIVED

NOV 06 1997

STATE ENGINEERING CORP. 5895

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 3970097

Project Name: NORTHING DRY CLEANERS

Sampler: MICHAEL SYKES

Lab Number: 97-A094475

Sample ID: SB 08

Sample Type: Soil

Site ID:

Date Collected: 10/15/97

Time Collected: 9:40

Date Received: 10/27/97

Time Received: 8:30

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS by GC										
Benzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Bromobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
n-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
sec-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
tert-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
2-Chlorotoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
4-Chlorotoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Ethylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Isopropylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
4-Isopropyltoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Naphthalene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
n-Propylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Styrene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Toluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
1,2,3-Trichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
1,2,4-Trichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
1,2,4-Trimethylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
1,3,5-Trimethylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
m,p-Xylenes	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
o-Xylene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Hexachlorobutadiene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Bromochloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Bromoform	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Bromomethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Chloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Chloroform	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Chloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77
1,2-Dibromoethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80210	77

## SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 97-A094475

Sample ID: SB 08

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Oil Factor	Date	Time	Analyst	Method	Batch
Dibromomethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,3-Trichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Vinyl chloride	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Dichlorodifluoromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
cis-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,3-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
2,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,1,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Tetrachloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Trichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Trichlorofluoromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dibromo-3-chloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
PID Surr., a,a,a-trifluorotoluene	91.	50. - 150.
Hall Surr., chloroprene	89.	53. - 113.
Hall Surr., 1-chloro-3-fluorobenzene	98.	52. - 116.

Report Approved By:

*Michael H. Dunn*

Report Date: 11/ 3/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director

COPY 1



## SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

STATE ENGINEERING CORP. 5896

609 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 97-A094476

Sample ID: SB 09

Sample Type: Soil

Site ID:

Project: 3970097

Project Name: NORTHING DRY CLEANERS

Sampler: MICHAEL SYKES

Date Collected: 10/15/97

Time Collected: 13:40

Date Received: 10/27/97

Time Received: 8:30

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS by GC										
Benzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
n-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
sec-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
tert-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
2-Chlorotoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
4-Chlorotoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Ethylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Isopropylbenzene	ND	ng/kg	0.0010	0.0001	1	10/30/97	13:04	E. Smith	8021B	77
4-Isopropyltoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Naphthalene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
n-Propylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Styrene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Toluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,3-Trichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,4-Trichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,4-Trimethylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,3,5-Trimethylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
m,p-Xylenes	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
o-Xylene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Hexachlorobutadiene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromochloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromoform	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromomethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chloroform	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dibromoethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77

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P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 97-A094476

Sample ID: SB 09

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Oil Factor	Date	Time	Analyst	Method	Batch
Dibromomethane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,3-Trichloropropane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Vinyl chloride	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Dichlorodifluoromethane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1-Dichloroethane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dichloroethane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1-Dichloroethene	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
cis-1,2-Dichloroethene	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
trans-1,2-Dichloroethene	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dichloropropane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,3-Dichloropropane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
2,2-Dichloropropane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1-Dichloropropene	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
cis-1,3-Dichloropropene	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
trans-1,3-Dichloropropene	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Methylene chloride	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Tetrachloroethene	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,1-Trichloroethane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,2-Trichloroethane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Trichloroethene	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Trichlorofluoromethane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
FID Surr., 1,3,5-trifluorotoluene	91.	50. - 150.
Ball Surr., chloroprene	83.	56. - 118.
Ball Surr., 1-chloro-3-fluorobenzene	99.	52. - 116.

Report Approved By:

*Michael H. Dunn*

Report Date: 11/ 3/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



## SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

STATE ENGINEERING CORP. 5896

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 97-A094477

Sample ID: SB 10

Sample Type: Soil

Site ID:

Project: 3970097

Project Name: NORTHING DRY CLEANERS

Sampler: MICHAEL SYKES

Date Collected: 10/15/97

Time Collected: 15:38

Date Received: 10/27/97

Time Received: 8:30

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS by GCX										
Benzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
n-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
sec-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
tert-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
2-Chlorotoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
4-Chlorotoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Ethylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Isopropylbenzene	ND	ng/kg	0.0010	0.0001	1	10/30/97	13:04	E. Smith	8021B	77
4-Isopropyltoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Naphthalene	0.0110	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
n-Propylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Styrene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Toluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,3-Trichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,4-Trichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,4-Trimethylbenzene	0.0050	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,3,5-Trimethylbenzene	0.0040	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
m,p-Xylenes	0.0050	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
o-Xylene	0.0030	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Hexachlorobutadiene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromochloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromoform	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromomethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chloroform	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dibromoethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77

COPY 1



## SPECIALIZE SSAYS, INC.

2960 Foster Creighton Dr.  
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Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 97-A094477

Sample ID: SB 10

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Bromomethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,2,3-Trichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
Vinyl chloride	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
Dichlorodifluoromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,1-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
cis-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,3-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
2,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,1-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,1,1,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
Tetrachloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
Trichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
Trichlorofluoromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77
1,2-Dibromo-3-chloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	80218	77

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
FID Surr., a,a,a-trifluorotoluene	85.	50. - 150.
Hall Surr., chloroprene	74.	56. - 118.
Hall Surr., 1-chloro-3-fluorobenzene	97.	52. - 116.



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ANALYTICAL REPORT

Laboratory Number: 97-A094477  
Sample ID: SB 10

Page 3

Surrogate

% Recovery

Target Range

Report Approved By:

*Michael H. Dunn*

Report Date: 11/ 3/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director



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## ANALYTICAL REPORT

DATE ENGINEERING CORP. 5896

1408 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 97-A094478

Sample ID: SB 11

Sample Type: Soil

Site ID:

Object: 3970097

Object Name: NORTHING DRY CLEANERS

Sampler: MICHAEL SYKES

Date Collected: 10/15/97

Time Collected: 17:40

Date Received: 10/27/97

Time Received: 8:30

Analyte	Result	Units	Report Limit	Quan Limit	Oil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS by GC										
Benzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
n-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
sec-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
tert-Butylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
2-Chlorotoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
4-Chlorotoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,3-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,4-Dichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Ethylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Isopropylbenzene	ND	ng/kg	0.0010	0.0001	1	10/30/97	13:04	E. Smith	8021B	77
4-Isopropyltoluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Naphthalene	0.0030	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
n-Propylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Styrene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Toluene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,3-Trichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,4-Trichlorobenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,4-Trimethylbenzene	0.0020	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,3,5-Trimethylbenzene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
m,p-Xylenes	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
o-Xylene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Hexachlorobutadiene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromochloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromodichloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromoform	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Bromomethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Carbon tetrachloride	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chloroform	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Chloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Dibromochloromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dibromoethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77

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## ANALYTICAL REPORT

Laboratory Number: 97-A094478

Sample ID: SB 11

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Dibromomethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2,3-Trichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Methyl chloride	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Dichlorodifluoromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
cis-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
trans-1,2-Dichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,3-Dichloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
cis-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
trans-1,3-Dichloropropene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Methylene chloride	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,1,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Tetrachloroethene	0.0040	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,1-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,1,2-Trichloroethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Trichloroethene	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
Trichlorofluoromethane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77
1,2-Dibromo-3-chloropropane	ND	ng/kg	0.0010	0.0010	1	10/30/97	13:04	E. Smith	8021B	77

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
ID Surr., 2,4,6-trifluorotoluene	99.	50. - 150.
Ball Surr., chloroprene	76.	56. - 118.
Ball Surr., 1-chloro-3-fluorobenzene	84.	52. - 116.

Report Approved By:

*Michael H. Dunn*

Report Date: 11/ 3/97

Theodore J. Duello, Ph.D., Q.A. Officer  
Michael H. Dunn, M.S., Technical Director  
Danny B. Hale, M.S., Laboratory Director

COPY 1

## 82370 CHAIN-OF-CUSTODY

NO.: 00001

Page: 1 of 1

PROJECT NO.: 3970097

PROJECT NAME: Nothing Dry Cleaners

P.O. NO.: 32972205

LAB DESTINATION: Specialized Assays

SAMPLER(S) NAME:

Michael Sykes / Geologist

TITLE:

Lab Code - for Lab use only	Yr. Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: METHOD	TEST: METHOD	TEST: METHOD	TEST: METHOD	TEST: METHOD	TEST: METHOD	REMARKS
94475	10/15	9:40	X		SB-08 8-10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	G	I							
94476	10/15	1:40	X		SB-09	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	G	I							
94477	10/15	3:38	X		SB-10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	G	I							
94478	10/15	5:40	X		SB-11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	G	I							
			X			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	G	I							
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										

Relinquished by: Michael Sykes

Date: 10/24/97 Time: 4:00

Received by: Ted Ex Air Bill 800163282050

Date: 10/24/97 Time: 4:22

LAB COMMENTS

All Sample 8210 Any question Just call. Thanks

Relinquished by: (Signature):

Date: Time:

Received by: (Signature):

Date: Time:

Relinquished by: (Signature):

Date: Time:

Received for Laboratory by: (Signature):

Date: Time:

REMARKS ON SAMPLE RECEIVED BY LAB:

Bottle Intact: ☐  
Preserved: ☐  
Chilled: ☐  
Other: ☐

SAMPLE SHIPPING METHOD

Hand Delivery ☐  
Air (specify) ☒  
Other (specify) ☐

SAMPLE CONTAINER TYPE

P = Plastic  
G = Glass  
GA = Glass Amber

82339

## CHAIN-OF-CUSTODY

NO.: 00001

Page: 1 of 1

Quote # 101397B515

PROJECT NO.: 3970097 PROJECT NAME: Nothing Dry Cleaners

P.O. NO.: 3297205 LAB DESTINATION: Specialized Assays

SAMPLER(S) NAME: Michael Sikes Geologist

TITLE:

Lab Code - for Lab use only	Yr. Date	Time	Comp	Lab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST METHOD	TEST METHOD	TEST METHOD	TEST METHOD	REMARKS
94367	10/15	9:40	X		SB-08 B-10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	G	1					
94368	10/15	1:40	X		SB-09	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	G	1					
94369	10/15	3:31	X		SB-10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	G	1					
94370	10/15	5:40	X		SB-11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	G	1					
			X			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	G	1					
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								10/28/97
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Per Mike Sikes run
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								8021 halogenated vol.
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Dr
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								9:13 AM

Relinquished by: (Signature): Michael Sikes	Date: 10/21/97 Time: 4:00	Received by: (Signature): Fed Ex Air Bill	Date: 10/24/97 Time: 4:22	LAB COMMENTS: All sample 8210 Any question. Just call. Thanks																				
Relinquished by: (Signature):	Date: Time:	Received by: (Signature):	Date: Time:	REMARKS ON SAMPLE RECEIVED BY LAB:																				
Relinquished by: (Signature):	Date: Time:	Received for Laboratory by: (Signature): CB	Date: 10/27/97 Time: 5:30	<table border="1"> <tr> <td>Bottle Intact:</td> <td><input type="checkbox"/></td> <td>Hand Delivery:</td> <td><input type="checkbox"/></td> <td>P = Plastic</td> </tr> <tr> <td>Preserved:</td> <td><input type="checkbox"/></td> <td>Air (specify):</td> <td><input checked="" type="checkbox"/></td> <td>G = Glass</td> </tr> <tr> <td>Chilled:</td> <td><input type="checkbox"/></td> <td>Other (specify):</td> <td><input type="checkbox"/></td> <td>GA = Glass Amber</td> </tr> <tr> <td>Other:</td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> </table>	Bottle Intact:	<input type="checkbox"/>	Hand Delivery:	<input type="checkbox"/>	P = Plastic	Preserved:	<input type="checkbox"/>	Air (specify):	<input checked="" type="checkbox"/>	G = Glass	Chilled:	<input type="checkbox"/>	Other (specify):	<input type="checkbox"/>	GA = Glass Amber	Other:	<input type="checkbox"/>			
Bottle Intact:	<input type="checkbox"/>	Hand Delivery:	<input type="checkbox"/>	P = Plastic																				
Preserved:	<input type="checkbox"/>	Air (specify):	<input checked="" type="checkbox"/>	G = Glass																				
Chilled:	<input type="checkbox"/>	Other (specify):	<input type="checkbox"/>	GA = Glass Amber																				
Other:	<input type="checkbox"/>																							

Soil Sample

Analysis Data

Boring B-1

5-2-00



# SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

BHATE ENVIRONMENTAL, INC. 5896

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: #3970097

Project Name: NORTHINGTON CLEANERS

Sampler: J. KOGUT

Lab Number: CO-A62064

Sample ID: SOIL 32-36

Sample Type: Soil

Site ID:

Date Collected: 5/ 2/00

Time Collected:

Date Received: 5/ 4/00

Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ng/kg	0.0100	0.0100	1	5/10/00	8:07	R. Ward	82600	4177
Benzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Bromobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Bromochloromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Bromoform	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Bromomethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
2-Butanone	ND	ng/kg	0.0100	0.0100	1	5/10/00	8:07	R. Ward	82600	4177
n-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
sec-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
t-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Carbon disulfide	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Carbon tetrachloride	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Chlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Chloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
2-Chloroethylvinylether	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Chloroform	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Chloromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
2-Chlorotoluene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
4-Chlorotoluene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
1,2-Dibromo-3-chloropropane	ND	ng/kg	0.0100	0.0100	1	5/10/00	8:07	R. Ward	82600	4177
Dibromochloromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
1,2-Dibromoethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Dibromomethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
1,2-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
1,3-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
1,4-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
Dichlorodifluoromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
1,1-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
1,2-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
1,1-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
cis-1,2-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
trans-1,2-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177
1,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	82600	4177

Sample report continued . . .



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2960 Foster Creighton Dr.  
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Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 00-A62064  
Sample ID: SOIL 32-36'

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
1,3-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
2,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
1,1-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
cis-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
trans-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
Ethylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
Hexachlorobutadiene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
2-Hexanone	ND	ng/kg	0.0100	0.0100	1	5/10/00	8:07	R. Ward	8260K	4177
Isopropylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
4-Isopropyltoluene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
4-Methyl-2-pentanone	ND	ng/kg	0.0100	0.0100	1	5/10/00	8:07	R. Ward	8260K	4177
Methylene chloride	ND	ng/kg	0.0050	0.0050	1	5/10/00	8:07	R. Ward	8260K	4177
Naphthalene	ND	ng/kg	0.0050	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
n-Propylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
Styrene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
1,1,1,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
Tetrachloroethene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
Toluene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
1,2,3-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
1,2,4-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
1,1,1-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
1,1,2-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
Trichloroethene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
1,2,3-Trichloropropane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
1,2,4-Trinethylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
1,3,5-Trinethylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
Vinyl chloride	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
Xylenes	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
Bromodichloromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177
Trichlorofluoromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:07	R. Ward	8260K	4177

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
surr-1,2-Dichloroethane, d4	72.	41. - 138.
surr-Toluene d8	101.	55. - 136.
surr-4-BromoFluorobenzene	86.	53. - 132.
surr-DibromoFluoromethane	96.	60. - 146.

Sample report continued . . .



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Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 00-A62064  
Sample ID: SOIL 32-36'

Page 3

All results reported on a wet weight basis.

These results relate only to the items tested.  
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permission of the laboratory.

Report Approved By:

Report Date: 5/11/00

Theodore J. Duello, Ph.D., Technical Serv.  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Gail A Lage, Technical Serv.

Paul E. Lane, Jr., Lab Director  
Glenn L. Norton, Technical Serv.  
Kelly S. Ruppel, Technical Serv.  
Pamela A. Langford, Technical Serv.

End of Sample Report.

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## ANALYTICAL REPORT

BHATE ENVIRONMENTAL, INC. 5896

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 00-A62065

Sample ID: SOIL 40-44

Sample Type: Soil

Site ID:

Project: #3970097

Project Name: NORTHINGTON CLEANERS

Sampler: J. KOGUT

Date Collected: 5/ 2/00

Time Collected:

Date Received: 5/ 4/00

Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ng/kg	0.0100	0.0100	1	5/10/00	8:43	R. Ward	8260B	4177
Benzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Bromobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Bromochloromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Bromoform	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Bromomethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
2-Butanone	ND	ng/kg	0.0100	0.0100	1	5/10/00	8:43	R. Ward	8260B	4177
n-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
sec-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
t-Butylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Carbon disulfide	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Carbon tetrachloride	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Chlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Chloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
2-Chloroethylvinylether	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Chloroform	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Chloromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
2-Chlorotoluene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
4-Chlorotoluene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
1,2-Dibromo-3-chloropropane	ND	ng/kg	0.0100	0.0100	1	5/10/00	8:43	R. Ward	8260B	4177
Dibromochloromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
1,2-Dibromoethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Dibromomethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
1,2-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
1,3-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
1,4-Dichlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
Dichlorodifluoromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
1,1-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
1,2-Dichloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
1,1-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
cis-1,2-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
trans-1,2-Dichloroethene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177
1,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	8260B	4177

Sample report continued . . .



# SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 00-A62065

Sample ID: SOIL 40-44

Page 2

Analyte	Result	Units	Report Limit	Ruan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
1,3-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
2,2-Dichloropropane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
1,1-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
cis-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
trans-1,3-Dichloropropene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
Ethylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
Hexachlorobutadiene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
2-Hexanone	ND	ng/kg	0.0100	0.0100	1	5/10/00	8:43	R. Ward	82608	4177
Isopropylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
4-Isopropyltoluene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
4-Methyl-2-pentanone	ND	ng/kg	0.0100	0.0100	1	5/10/00	8:43	R. Ward	82608	4177
Methylene chloride	ND	ng/kg	0.0050	0.0050	1	5/10/00	8:43	R. Ward	82608	4177
Naphthalene	ND	ng/kg	0.0050	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
n-Propylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
Styrene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
1,1,1,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
1,1,2,2-Tetrachloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
Tetrachloroethene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
Toluene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
1,2,3-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
1,2,4-Trichlorobenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
1,1,1-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
1,1,2-Trichloroethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
Trichloroethene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
1,2,3-Trichloropropane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
1,2,4-Trinethylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
1,3,5-Trinethylbenzene	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
Vinyl chloride	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
Xylenes	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
Bromodichloromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177
Trichlorofluoromethane	ND	ng/kg	0.0020	0.0020	1	5/10/00	8:43	R. Ward	82608	4177

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
surr-1,2-Dichloroethane, d4	73.	41. - 138.
surr-Toluene d8	99.	55. - 136.
surr-4-Bromofluorobenzene	86.	53. - 132.
surr-Dibromofluoromethane	97.	60. - 146.

Sample report continued . . .



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P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 00-A62065  
Sample ID: SOIL 40-44'

Page 3

All results reported on a wet weight basis.

These results relate only to the items tested.  
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permission of the laboratory.

Report Approved By:

Report Date: 3/11/00

Theodore J. Duello, Ph.D., Technical Serv.  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Gail A. Lage, Technical Serv.

Paul E. Lane, Jr., Lab Director  
Glenn L. Norton, Technical Serv.  
Kelly S. Ruppel, Technical Serv.  
Pamela A. Langford, Technical Serv.

End of Sample Report.

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Nashville, TN 37204-0566  
Phone 1-615-726-0177

## PROJECT QUALITY CONTROL DATA

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	R.C. Batch	Sample Spiked
Benzene	ng/l	< 0.0020	0.0621	0.0500	124	66. - 135.	4621	00-A62119
Benzene	ng/kg	< 0.0020	0.0499	0.0500	100	62. - 147.	4177	blank
Chlorobenzene	ng/kg	< 0.0020	0.0405	0.0500	81	59. - 141.	4177	blank
1,1-Dichloroethene	ng/kg	< 0.0020	0.0551	0.0500	110	61. - 143.	4177	blank
Toluene	ng/l	< 0.0020	0.0544	0.0500	109	55. - 151.	4621	00-A62119
Toluene	ng/kg	< 0.0020	0.0466	0.0500	93	57. - 156.	4177	blank
Trichloroethene	ng/kg	< 0.0020	0.0479	0.0500	96	60. - 158.	4177	blank

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	R.C. Batch
Benzene	ng/l	0.0621	0.0605	2.61	18.	4621
Benzene	ng/kg	0.0499	0.0496	0.60	20.	4177
Chlorobenzene	ng/l	0.0547	0.0584	6.54	20.	4621
Chlorobenzene	ng/kg	0.0405	0.0408	0.74	30.	4177
1,1-Dichloroethene	ng/l	0.0488	0.0523	6.92	52.	4621
1,1-Dichloroethene	ng/kg	0.0551	0.0541	1.83	21.	4177
Toluene	ng/l	0.0544	0.0541	0.55	22.	4621
Toluene	ng/kg	0.0466	0.0464	0.43	20.	4177
Trichloroethene	ng/l	0.0495	0.0547	9.98	18.	4621
Trichloroethene	ng/kg	0.0479	0.0478	0.21	22.	4177

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	R.C. Batch
Acetone	ng/l	0.2500	0.2620	105	36 - 160	4621
Acetone	ng/kg	0.2500	0.2840	114	15 - 175	4177
Benzene	ng/l	0.0500	0.0516	103	75 - 125	4621
Benzene	ng/kg	0.0500	0.0504	101	74 - 129	4177
Bromobenzene	ng/l	0.0500	0.0378	76 %	79 - 125	4621
Bromobenzene	ng/kg	0.0500	0.0526	105	74 - 126	4177
Bromochloromethane	ng/l	0.0500	0.0452	90	67 - 136	4621
Bromochloromethane	ng/kg	0.0500	0.0480	96	64 - 137	4177
Bromoform	ng/l	0.0500	0.0539	108	62 - 131	4621
Bromoform	ng/kg	0.0500	0.0578	116	64 - 136	4177
Bromomethane	ng/l	0.0500	0.0372	74	57 - 136	4621
Bromomethane	ng/kg	0.0500	0.0449	90	59 - 136	4177
2-Butanone	ng/l	0.2500	0.2420	97	36 - 162	4621
2-Butanone	ng/kg	0.2500	0.2740	110	26 - 168	4177
n-Butylbenzene	ng/l	0.0500	0.0426	85	66 - 126	4621
n-Butylbenzene	ng/kg	0.0500	0.0562	112	57 - 135	4177
sec-Butylbenzene	ng/l	0.0500	0.0357	71	71 - 128	4621

Project QC continued . . .



# SPECIALIZED ASSAYS, INC.

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## PROJECT QUALITY CONTROL DATA

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	R.C. Batch
sec-Butylbenzene	ng/kg	0.0500	0.0535	107	72 - 130	4177
t-Butylbenzene	ng/l	0.0500	0.0506	61 #	74 - 127	4621
t-Butylbenzene	ng/kg	0.0500	0.0544	109	76 - 129	4177
Carbon disulfide	ng/l	0.0500	0.0516	103	68 - 130	4621
Carbon disulfide	ng/kg	0.0500	< 0.0020	N/A	65 - 136	4177
Carbon tetrachloride	ng/l	0.05000	0.05000	100	66 - 138	4621
Carbon tetrachloride	ng/kg	0.0500	0.0523	105	70 - 134	4177
Chlorobenzene	ng/l	0.0500	0.0484	97	77 - 123	4621
Chlorobenzene	ng/kg	0.0500	0.0509	102	73 - 132	4177
Chloroethane	ng/l	0.0500	0.0497	87	63 - 140	4621
Chloroethane	ng/kg	0.0500	0.0443	89	59 - 144	4177
2-Chloroethylvinylether	ng/l	0.2500	0.2480	99	28 - 153	4621
2-Chloroethylvinylether	ng/kg	0.2500	0.2530	101	41 - 163	4177
Chloroform	ng/l	0.0500	0.0448	90	68 - 131	4621
Chloroform	ng/kg	0.0500	0.0514	103	71 - 129	4177
Chloromethane	ng/l	0.0500	< 0.0020	N/A	56 - 139	4621
Chloromethane	ng/kg	0.0500	0.0430	86	47 - 146	4177
2-Chlorotoluene	ng/l	0.0500	0.0328	66 #	78 - 125	4621
2-Chlorotoluene	ng/kg	0.0500	0.0538	108	73 - 127	4177
4-Chlorotoluene	ng/l	0.0500	0.0306	61 #	78 - 125	4621
4-Chlorotoluene	ng/kg	0.0500	0.0543	109	69 - 127	4177
1,2-Dibromo-3-chloropropane	ng/l	0.0500	0.0438	88	54 - 143	4621
1,2-Dibromo-3-chloropropane	ng/kg	0.0500	0.0603	121	56 - 144	4177
Dibromochloromethane	ng/l	0.0500	0.0415	83	72 - 133	4621
Dibromochloromethane	ng/kg	0.0500	0.0559	112	74 - 131	4177
1,2-Dibromoethane	ng/l	0.0500	0.0492	98	75 - 131	4621
1,2-Dibromoethane	ng/kg	0.0500	0.0564	113	72 - 131	4177
Dibromomethane	ng/l	0.0500	0.0470	94	68 - 135	4621
Dibromomethane	ng/kg	0.0500	0.0529	106	65 - 133	4177
1,2-Dichlorobenzene	ng/l	0.0500	0.0430	86	75 - 126	4621
1,2-Dichlorobenzene	ng/kg	0.0500	0.0543	109	70 - 127	4177
1,3-Dichlorobenzene	ng/l	0.0500	0.0373	75 #	75 - 125	4621
1,3-Dichlorobenzene	ng/kg	0.0500	0.0545	109	64 - 128	4177
1,4-Dichlorobenzene	ng/l	0.0500	0.0379	76	74 - 125	4621
1,4-Dichlorobenzene	ng/kg	0.0500	0.0523	105	62 - 129	4177
Dichlorodifluoromethane	ng/l	0.0500	< 0.0020	N/A	55 - 142	4621
Dichlorodifluoromethane	ng/kg	0.0500	0.0431	86	55 - 142	4177
1,1-Dichloroethane	ng/l	0.0500	0.0450	90	67 - 139	4621
1,1-Dichloroethane	ng/kg	0.0500	0.0515	103	68 - 134	4177
1,2-Dichloroethane	ng/l	0.0500	0.0523	105	63 - 142	4621
1,2-Dichloroethane	ng/kg	0.0500	0.0541	108	62 - 135	4177
1,1-Dichloroethene	ng/l	0.0500	0.0462	92	71 - 131	4621
1,1-Dichloroethene	ng/kg	0.0500	0.0474	95	69 - 133	4177
cis-1,2-Dichloroethene	ng/l	0.0500	0.0463	93	70 - 135	4621



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## PROJECT QUALITY CONTROL DATA

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	A.C. Batch
cis-1,2-Dichloroethene	ng/kg	0.0500	0.0521	104	67 - 134	4177
trans-1,2-Dichloroethene	ng/l	0.0500	0.0421	84	69 - 134	4621
trans-1,2-Dichloroethene	ng/kg	0.0500	0.0513	103	69 - 135	4177
1,2-Dichloropropane	ng/l	0.0500	0.0514	103	73 - 129	4621
1,2-Dichloropropane	ng/kg	0.0500	0.0503	101	76 - 128	4177
1,3-Dichloropropane	ng/l	0.0500	0.0504	101	71 - 130	4621
1,3-Dichloropropane	ng/kg	0.0500	0.0540	108	69 - 130	4177
2,2-Dichloropropane	ng/l	0.0500	0.0457	91	42 - 139	4621
2,2-Dichloropropane	ng/kg	0.0500	0.0532	106	62 - 134	4177
1,1-Dichloropropene	ng/l	0.0500	0.0549	110	70 - 131	4621
1,1-Dichloropropene	ng/kg	0.0500	0.0526	105	68 - 135	4177
cis-1,3-Dichloropropene	ng/l	0.0500	0.0499	100	66 - 122	4621
cis-1,3-Dichloropropene	ng/kg	0.0500	0.0536	111	69 - 131	4177
trans-1,3-Dichloropropene	ng/l	0.0500	0.0514	103	60 - 127	4621
trans-1,3-Dichloropropene	ng/kg	0.0500	0.0578	116	67 - 130	4177
Ethylbenzene	ng/l	0.0500	0.0516	103	77 - 127	4621
Ethylbenzene	ng/kg	0.0500	0.0514	103	70 - 135	4177
Hexachlorobutadiene	ng/l	0.0500	0.0522	104	59 - 132	4621
Hexachlorobutadiene	ng/kg	0.0500	0.0549	110	52 - 140	4177
2-Hexanone	ng/l	0.2500	0.2040	82	39 - 158	4621
2-Hexanone	ng/kg	0.2500	0.2770	111	46 - 146	4177
Isopropylbenzene	ng/l	0.0500	0.0360	72	77 - 127	4621
Isopropylbenzene	ng/kg	0.0500	0.0538	108	74 - 129	4177
4-Isopropyltoluene	ng/l	0.0500	0.0364	73	70 - 127	4621
4-Isopropyltoluene	ng/kg	0.0500	0.0548	110	67 - 129	4177
4-Methyl-2-pentanone	ng/l	0.2500	0.2240	90	31 - 148	4621
4-Methyl-2-pentanone	ng/kg	0.2500	0.2740	110	50 - 147	4177
Methylene chloride	ng/l	0.0500	0.0551	110	66 - 135	4621
Methylene chloride	ng/kg	0.0500	0.0561	112	51 - 142	4177
Naphthalene	ng/l	0.0500	0.0538	108	54 - 155	4621
Naphthalene	ng/kg	0.0500	0.0668	134	59 - 141	4177
n-Propylbenzene	ng/l	0.0500	0.0314	63	76 - 125	4621
n-Propylbenzene	ng/kg	0.0500	0.0544	109	70 - 131	4177
Styrene	ng/l	0.0500	0.0408	82	78 - 129	4621
Styrene	ng/kg	0.0500	0.0501	100	72 - 130	4177
1,1,1,2-Tetrachloroethane	ng/l	0.0500	0.0439	88	77 - 131	4621
1,1,1,2-Tetrachloroethane	ng/kg	0.0500	0.0526	105	77 - 135	4177
1,1,2,2-Tetrachloroethane	ng/l	0.0500	0.0388	78	55 - 135	4621
1,1,2,2-Tetrachloroethane	ng/kg	0.0500	0.0552	110	64 - 139	4177
Tetrachloroethene	ng/l	0.0500	0.0441	88	73 - 125	4621
Tetrachloroethene	ng/kg	0.0500	0.0523	105	66 - 135	4177
Toluene	ng/l	0.0500	0.0475	95	73 - 124	4621
Toluene	ng/kg	0.0500	0.0518	104	72 - 125	4177
1,2,3-Trichlorobenzene	ng/l	0.0500	0.0590	118	56 - 150	4621

Project QC continued . . .



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## PROJECT QUALITY CONTROL DATA

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
1,2,3-Trichlorobenzene	ng/kg	0.0500	0.0595	119	50 - 137	4177
1,2,4-Trichlorobenzene	ng/l	0.0500	0.0574	115	59 - 137	4621
1,2,4-Trichlorobenzene	ng/kg	0.0500	0.0619	124	41 - 140	4177
1,1,1-Trichloroethane	ng/l	0.0500	0.0532	110	70 - 135	4621
1,1,1-Trichloroethane	ng/kg	0.0500	0.0529	106	68 - 137	4177
1,1,2-Trichloroethane	ng/l	0.0500	0.0492	98	72 - 127	4621
1,1,2-Trichloroethane	ng/kg	0.0500	0.0561	112	68 - 131	4177
Trichloroethane	ng/l	0.0500	0.0493	99	70 - 139	4621
Trichloroethane	ng/kg	0.0500	0.0528	106	70 - 128	4177
1,2,3-Trichloropropane	ng/l	0.0500	0.0614	123	63 - 137	4621
1,2,3-Trichloropropane	ng/kg	0.0500	0.0587	117	61 - 138	4177
1,2,4-Trimethylbenzene	ng/l	0.0500	0.0311	62 #	73 - 128	4621
1,2,4-Trimethylbenzene	ng/kg	0.0500	0.0558	112	68 - 126	4177
1,3,5-Trimethylbenzene	ng/l	0.0500	0.0305	61 #	76 - 127	4621
1,3,5-Trimethylbenzene	ng/kg	0.0500	0.0547	109	71 - 128	4177
Vinyl chloride	ng/l	0.0500	0.0537	107	72 - 147	4621
Vinyl chloride	ng/kg	0.0500	0.0474	95	61 - 142	4177
Xylenes	ng/l	0.1500	0.1225	82	67 - 138	4621
Xylenes	ng/kg	0.1500	0.1578	105	70 - 134	4177
Bromodichloromethane	ng/l	0.0500	0.0461	92	70 - 130	4621
Bromodichloromethane	ng/kg	0.0500	0.0535	107	75 - 130	4177
Trichlorofluoromethane	ng/l	0.0500	0.0585	117	67 - 137	4621
Trichlorofluoromethane	ng/kg	0.0500	0.0512	102	64 - 139	4177

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch
Acetone	< 0.0100	ng/l	4621
Benzene	< 0.0020	ng/l	4621
Bromobenzene	< 0.0020	ng/l	4621
Bromochloromethane	< 0.0020	ng/l	4621
Bromoform	< 0.0020	ng/l	4621
Bromomethane	< 0.0020	ng/l	4621
2-Butanone	< 0.0100	ng/l	4621
n-Butylbenzene	< 0.0020	ng/l	4621
sec-Butylbenzene	< 0.0020	ng/l	4621
t-Butylbenzene	< 0.0020	ng/l	4621
Carbon disulfide	< 0.0020	ng/l	4621
Carbon tetrachloride	< 0.00200	ng/l	4621
Chlorobenzene	< 0.0020	ng/l	4621
Chloroethane	< 0.0020	ng/l	4621
2-Chloroethylvinylether	< 0.0050	ng/l	4621
Chloroform	< 0.0020	ng/l	4621

Project QC continued . . .



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## PROJECT QUALITY CONTROL DATA

### Blank Data

Analyte	Blank Value	Units	R.C. Batch
Chloromethane	< 0.0020	ng/l	4621
2-Chlorotoluene	< 0.0020	ng/l	4621
4-Chlorotoluene	< 0.0020	ng/l	4621
1,2-Dibromo-3-chloropropane	< 0.0100	ng/l	4621
Dibromochloromethane	< 0.0020	ng/l	4621
1,2-Dibromoethane	< 0.0020	ng/l	4621
Dibromomethane	< 0.0020	ng/l	4621
1,2-Dichlorobenzene	< 0.0020	ng/l	4621
1,3-Dichlorobenzene	< 0.0020	ng/l	4621
1,4-Dichlorobenzene	< 0.0020	ng/l	4621
Dichlorodifluoromethane	< 0.0020	ng/l	4621
1,1-Dichloroethane	< 0.0020	ng/l	4621
1,2-Dichloroethane	< 0.0020	ng/l	4621
1,1-Dichloroethene	< 0.0020	ng/l	4621
cis-1,2-Dichloroethene	< 0.0020	ng/l	4621
trans-1,2-Dichloroethene	< 0.0020	ng/l	4621
1,2-Dichloropropane	< 0.0020	ng/l	4621
1,3-Dichloropropane	< 0.0020	ng/l	4621
2,2-Dichloropropane	< 0.0020	ng/l	4621
1,1-Dichloropropene	< 0.0020	ng/l	4621
cis-1,3-Dichloropropene	< 0.0020	ng/l	4621
trans-1,3-Dichloropropene	< 0.0020	ng/l	4621
Ethylbenzene	< 0.0020	ng/l	4621
Hexachlorobutadiene	< 0.0020	ng/l	4621
2-Hexanone	< 0.0100	ng/l	4621
Isopropylbenzene	< 0.0020	ng/l	4621
4-Isopropyltoluene	< 0.0020	ng/l	4621
4-Methyl-2-pentanone	< 0.0100	ng/l	4621
Methylene chloride	< 0.0020	ng/l	4621
Naphthalene	< 0.0050	ng/l	4621
n-Propylbenzene	< 0.0020	ng/l	4621
Styrene	< 0.0020	ng/l	4621
1,1,1,2-Tetrachloroethane	< 0.0020	ng/l	4621
1,1,2,2-Tetrachloroethane	< 0.0020	ng/l	4621
Tetrachloroethene	< 0.0020	ng/l	4621
Toluene	< 0.0020	ng/l	4621
1,2,3-Trichlorobenzene	< 0.0020	ng/l	4621
1,2,4-Trichlorobenzene	< 0.0020	ng/l	4621
1,1,1-Trichloroethane	< 0.0020	ng/l	4621
1,1,2-Trichloroethane	< 0.0020	ng/l	4621
Trichloroethene	< 0.0020	ng/l	4621
1,2,3-Trichloropropane	< 0.0020	ng/l	4621
1,2,4-Trimethylbenzene	< 0.0020	ng/l	4621
1,3,5-Trimethylbenzene	< 0.0020	ng/l	4621

Project QC continued . . .



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## PROJECT QUALITY CONTROL DATA

### Blank Data

Analyte	Blank Value	Units	R.C. Batch
Vinyl chloride	< 0.0020	ng/l	4621
Xylenes	< 0.0020	ng/l	4621
Bromodichloromethane	< 0.0020	ng/l	4621
Trichlorofluoromethane	< 0.0020	ng/l	4621

**Groundwater**

**Geoprobe Deep Boring**

**B-1**

**5-2-00**



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## ANALYTICAL REPORT

LBHATE ENVIRONMENTAL, INC. 3896

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35203

Lab Number: 00-A62063

Sample ID: WATER 75'

Sample Type: Ground water

Site ID:

Project: #3970097

Project Name: NORTHINGTON CLEANERS

Sampler: J. KOGUT

Date Collected: 5/ 2/00

Time Collected:

Date Received: 5/ 4/00

Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10	10	1	5/11/00	1:06	N. Hurt	82600	4621
Benzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Bromobenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Bromochloromethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Bromoform	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Bromomethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
2-Butanone	ND	ug/l	10	10	1	5/11/00	1:06	N. Hurt	82600	4621
n-Butylbenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
sec-Butylbenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
t-Butylbenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Carbon disulfide	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Carbon tetrachloride	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Chlorobenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Chloroethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
2-Chloroethylvinylether	ND	ug/l	5	5	1	5/11/00	1:06	N. Hurt	82600	4621
Chloroform	2.4	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Chloromethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
2-Chlorotoluene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
4-Chlorotoluene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
1,2-Dibromo-3-chloropropane	ND	ug/l	10	10	1	5/11/00	1:06	N. Hurt	82600	4621
Dibromochloromethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
1,2-Dibromoethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Dibromomethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
1,2-Dichlorobenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
1,3-Dichlorobenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
1,4-Dichlorobenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
Dichlorodifluoromethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
1,1-Dichloroethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
1,2-Dichloroethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
1,1-Dichloroethene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
cis-1,2-Dichloroethene	9.6	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
trans-1,2-Dichloroethene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
1,2-Dichloropropane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
1,3-Dichloropropane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621
2,2-Dichloropropane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	82600	4621

Sample report continued . . .



# SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 00-A62063  
Sample ID: WATER 75'

Page 2

Analyte	Result	Units	Report Limit	Run Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,1-Dichloropropene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
cis-1,3-Dichloropropene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
trans-1,3-Dichloropropene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
Ethylbenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
Hexachlorobutadiene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
2-Hexanone	ND	ug/l	10	10	1	5/11/00	1:06	N. Hurt	8260B	4621
Isopropylbenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
4-Isopropyltoluene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
4-Methyl-2-pentanone	ND	ug/l	10	10	1	5/11/00	1:06	N. Hurt	8260B	4621
Methylene chloride	ND	ug/l	5	5	1	5/11/00	1:06	N. Hurt	8260B	4621
Naphthalene	ND	ug/l	5	2	1	5/11/00	1:06	N. Hurt	8260B	4621
n-Propylbenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
Styrene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
1,1,1,2-Tetrachloroethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
1,1,2,2-Tetrachloroethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
Tetrachloroethene	860	ug/l	100	2	50	5/11/00	13:46	K. Hill	8260B	4621
Toluene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
1,2,3-Trichlorobenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
1,2,4-Trichlorobenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
1,1,1-Trichloroethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
1,1,2-Trichloroethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
Trichloroethene	6.2	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
1,2,3-Trichloropropane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
1,2,4-Trimethylbenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
1,3,5-Trimethylbenzene	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
Vinyl chloride	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
Xylenes	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
Bromodichloromethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621
Trichlorofluoromethane	ND	ug/l	2	2	1	5/11/00	1:06	N. Hurt	8260B	4621

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
UOA Surr, 1,2-DCA, d4	128.	53. - 145.
UOA Surr, Toluene d8	101.	80. - 123.
UOA Surr, 4-BFB	94.	73. - 122.
UOA Surr, DBFM	98.	58. - 148.

Sample report continued . . .

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# SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.  
P.O. Box 40566  
Nashville, TN 37204-0566  
Phone 1-615-726-0177

## ANALYTICAL REPORT

Laboratory Number: 00-A62063  
Sample ID: WATER 73'

Page 3

These results relate only to the items tested.  
This report shall not be reproduced except in full and with  
permission of the laboratory.

Report Approved By:

Report Date: 5/11/00

Theodore J. Duello, Ph.D., Technical Serv.  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Gail A Lage, Technical Serv.

Paul E. Lane, Jr., Lab Director  
Glenn L. Norton, Technical Serv.  
Kelly S. Ruppel, Technical Serv.  
Pamela A. Langford, Technical Serv.

End of Sample Report.

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# GROUNDWATER

GP-1 TO GP-18

12/00



December 15, 2000

Emmit Beers  
Bhate Environmental  
1608 12<sup>th</sup> Ave. S. #300  
Birmingham, AL 35205

RE: Subsurface investigation at the Northington Cleaners in Tuscaloosa, AL.

Dear Mr. Beers,

Enclosed is the analytical report for the above project conducted under your supervision on December 11<sup>th</sup> - 15<sup>th</sup>, 2000.

The GC lab screening process began on Monday December 11<sup>th</sup>, when I arrived at the site with the mobile laboratory. The soil samples were analyzed on site for Perchloroethene on a 9300 SRI Purge and Trap gas chromatograph equipped with a PID and an FID Detector. The Purge & Trap screening method had a detection limit of 2 ppb for the water samples. Certified aqueous standards were used to develop a 3-point calibration curve for the analyses. The PID detector quantified the data while the FID detector was used in series for verification. The analyses and appropriate chromatograms are enclosed in the Data Summary Report. Chromatograms and the report spreadsheet are in the chronological order in which they were run.

We do appreciate working with you and please let us know how we may further serve you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matthew Richards'.

Matthew Richards  
Field Technician



# Data Summary Report

## Northington Cleaners

**Client:** Bhate Environmental  
**Prepared for:** Emmit Beers  
**Location:** Tuscaloosa, AL  
**Chem Tech:** Matt Richards  
**Collection Dates:** December 11<sup>th</sup> - 15<sup>th</sup> 2000

Boring ID	Collection Time	PCE ppb	TOTAL ppb
12/11/00			
GP-1 @ 24'	4:00	bdl	-
GP-2 @ 24'	4:30	5	5
GP-3 @ 24'	5:00	11	11
12/12/00			
GP-4 @ 24'	8:30	16	16
GP-5 @ 24'	9:10	13	13
GP-6 @ 24'	10:00	5	5
GP-7 rinsate	10:50	bdl	-
GP-7 @ 24'	10:50	bdl	-
GP-8 @ 24'	1:45	bdl	-
GP-8 @ 52'	2:30	30	30
12/13/00			
GP-9 @ 52'	9:10	bdl	-
GP-9 @ 24'	9:30	bdl	-
GP-1 @ 52' (25x dil)	2:00	1,208	1,208
12/14/00			
GP-10 @ 48'	9:30	5	5
GP-10 rinsate	9:50	bdl	-
GP-11 @ 52'	10:50	18	18
GP-12 @ 52'	12:15	3	3
GP-7 @ 52'	3:30	317	317

bdl = below detection limit (2 ppb water)

ppb = parts per billion

PCE = Tetrachloroethene

12/15/00

GP-13 @ 52' (10x dll)	8:40	413	413
GP-14 @ 50' (10x dll)	9:20	799	799
GP-15 @ 50'	11:20	3	3
GP-16 @ 70'	2:15	3	3
GP-17 @ 60' (20x dll)	3:15	948	974
GP-18 @ 50'	4:30	2	2

ddl = below detection limit (2 ppb water)

ppb = parts per billion

PCE = Tetrachloroethene

Lab name: Geo Lab

Client: Bhate

Client ID: Northinto

Holding time:

Analysis date: 12/12/2000 06:57:28

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: Bhate1200PID13.CHR ()

Sample: GP-1 @ 24'

Operator: Matt Richards

Lab name: Geo Lab

Client: Bhate

Client ID: Northinto

Holding time:

Analysis date: 12/12/2000 06:57:28

Method: Purge & Trap

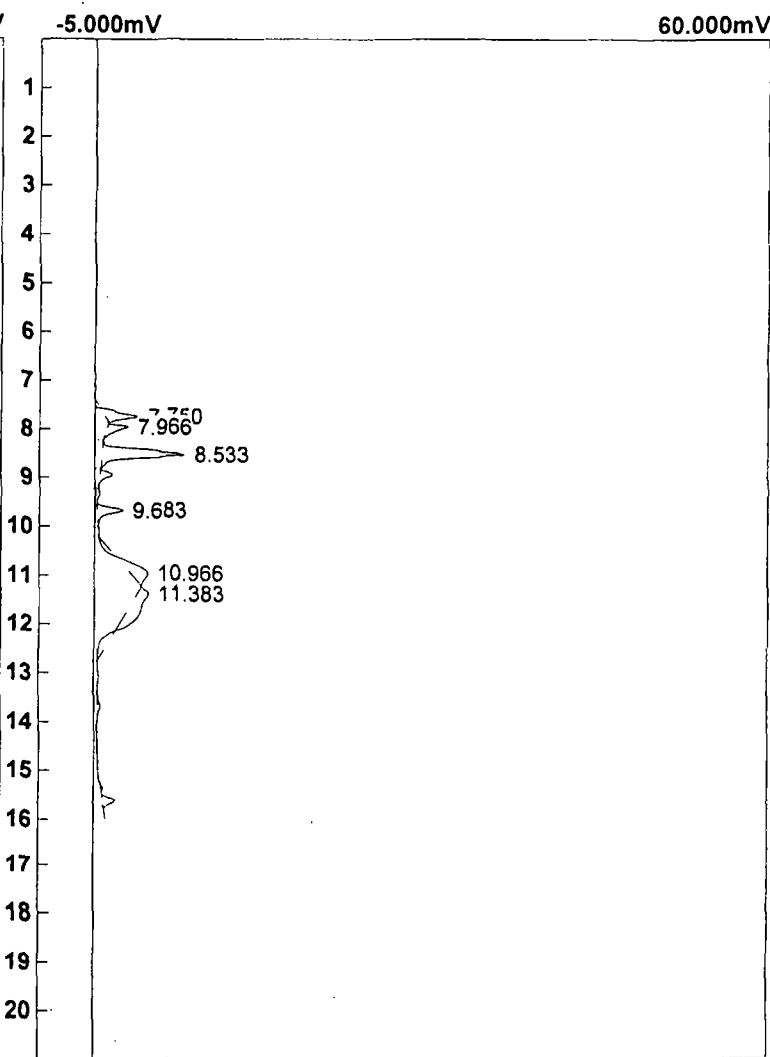
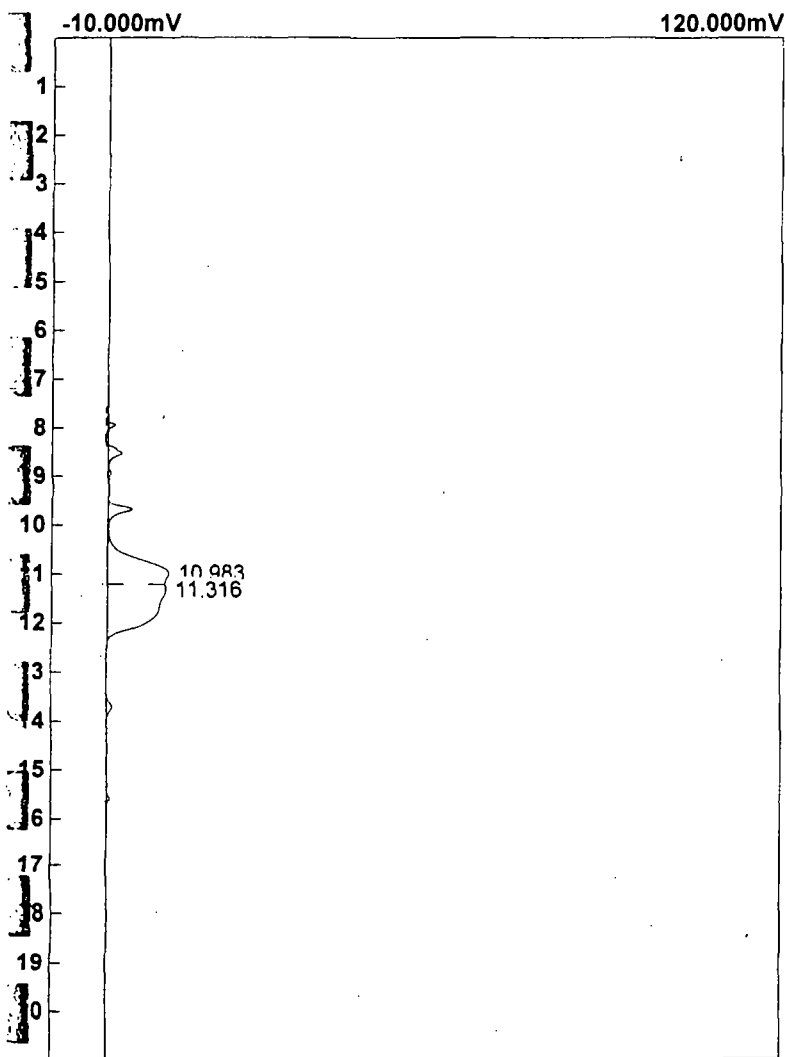
Description: FID Detector

Control filename: DEFAULT.CON

Data file: Bhate1200FID13.chr ()

Sample: GP-1 @ 24'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
-----------	-----------	------	----------	-------

		0.000	0.0000	
--	--	-------	--------	--

Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

		0.000	0.00	
--	--	-------	------	--

Lab name: Geo Lab

Client: Bhate

Client ID: Northinto

Holding time:

Analysis date: 12/12/2000 07:17:23

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: Bhate1200PID14.CHR ()

Sample: GP-2 @ 24'

Operator: Matt Richards

Lab name: Geo Lab

Client: F te

Client ID: Northinto

Holding time:

Analysis date: 12/12/2000 07:17:23

Method: Purge & Trap

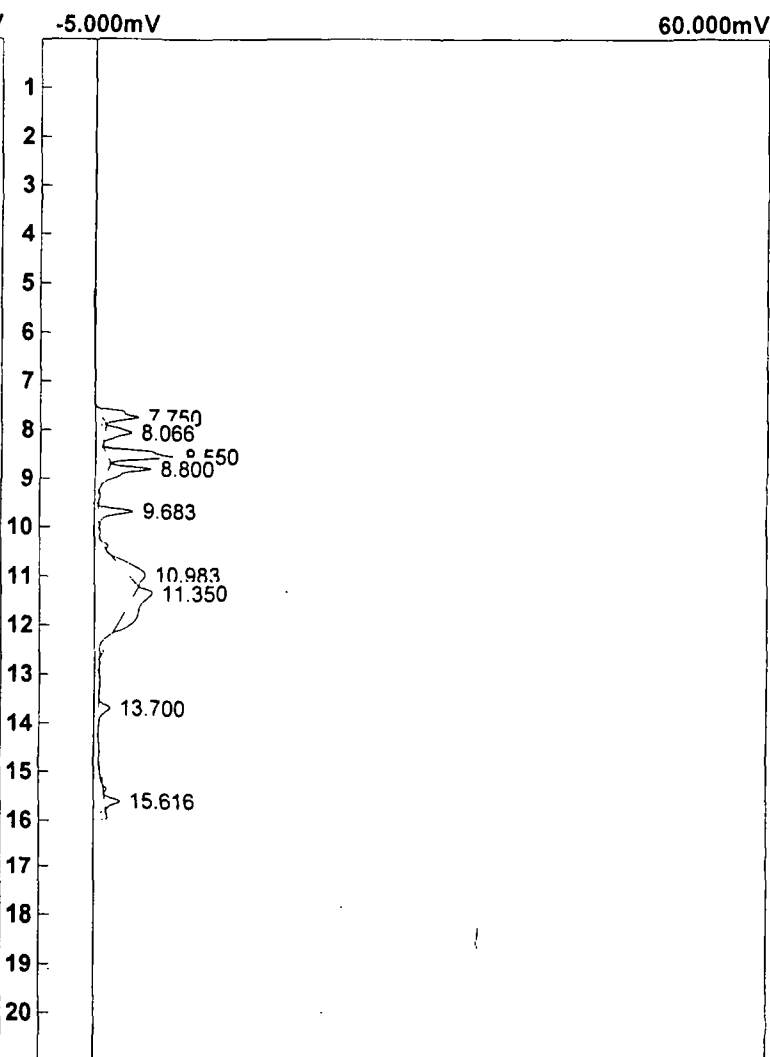
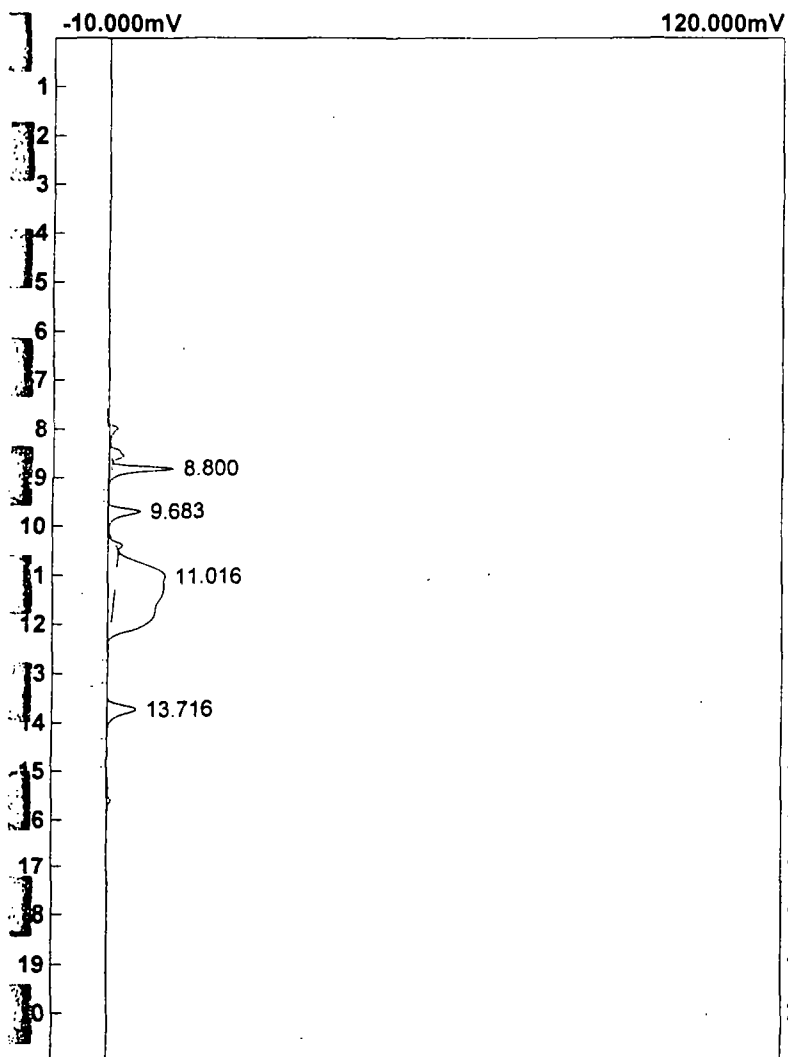
Description: FID Detector

Control filename: DEFAULT.CON

Data file: Bhate1200FID14.CHR ()

Sample: GP-2 @ 24'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
PCE	13.716	71.307	4.9657	ppb
		71.307	4.9657	

Component	Retention	Area	External	Units
PCE	13.700	11.966	5.12	ppb
		11.966	5.12	

Lab name: Geo Lab

Client: Bhate

Client ID: Northingto

Holding time:

Analysis date: 12/12/2000 07:37:10

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: Bhate1200PID15.CHR ()

Sample: GP-3 @ 24'

Operator: Matt Richards

Lab name: Geo Lab

Client: Bhate

Client ID: Northingto

Holding time:

Analysis date: 12/12/2000 07:37:10

Method: Purge & Trap

Description: FID Detector

Control filename: DEFAULT.CON

Data file: Bhate1200FID15.CHR ()

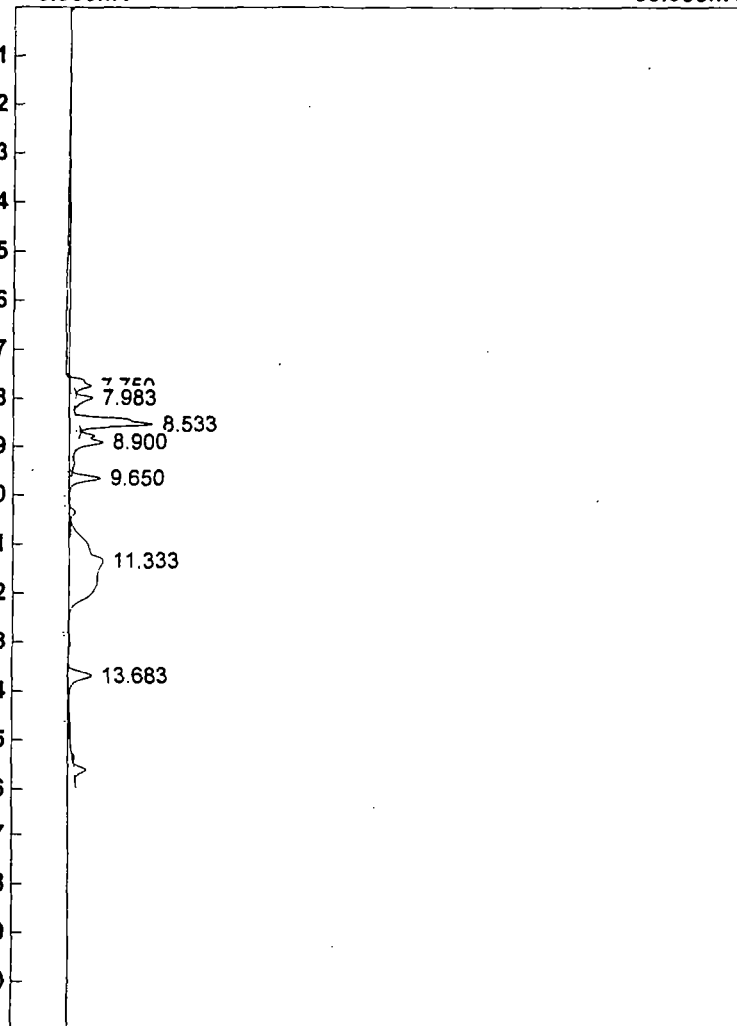
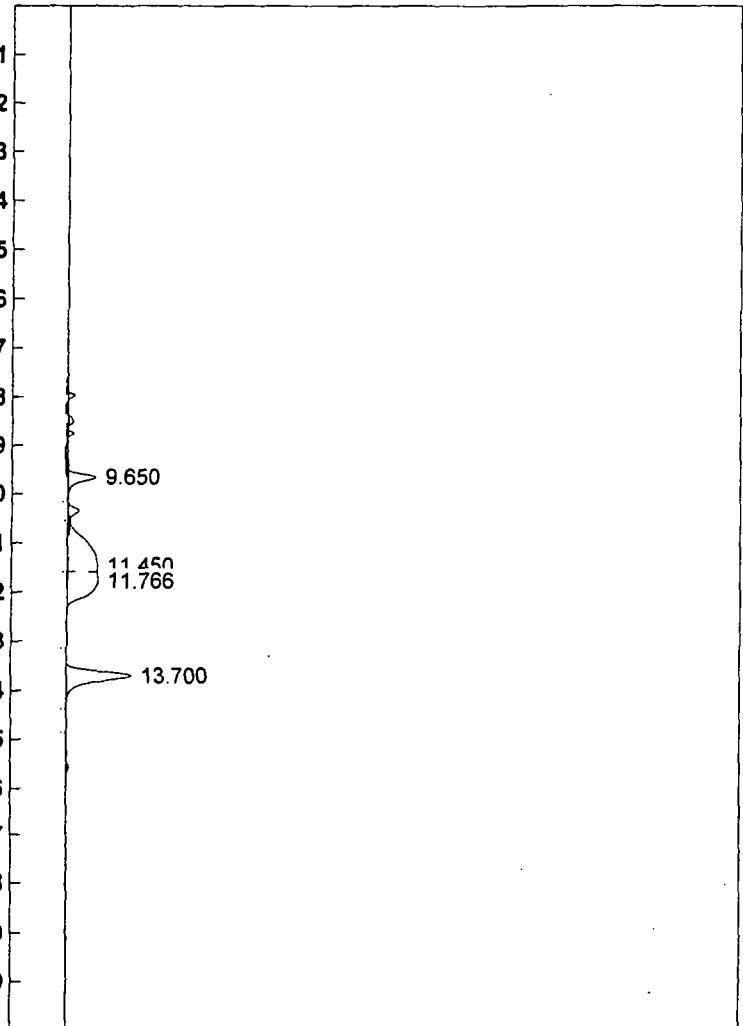
Sample: GP-3 @ 24'

Operator: Matt Richards

-10.000mV 120.000mV

-5.000mV

60.000mV



Component	Retention	Area	Internal	Units
-----------	-----------	------	----------	-------

PCE	13.700	165.640	11.5348	ppb
		165.640	11.5348	

Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

PCE	13.683	24.977	10.69	ppb
		24.977	10.69	

Lab name: Geo Lab

Client: Bhate

Client ID: Northinto

Holding time:

Analysis date: 12/12/2000 08:39:46

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID16.CHR ()

Sample: GP-4 @ 24'

Operator: Matt Richards

Lab name: Geo Lab

Client: Fute

Client ID: Northinto

Holding time:

Analysis date: 12/12/2000 08:39:46

Method: Purge & Trap

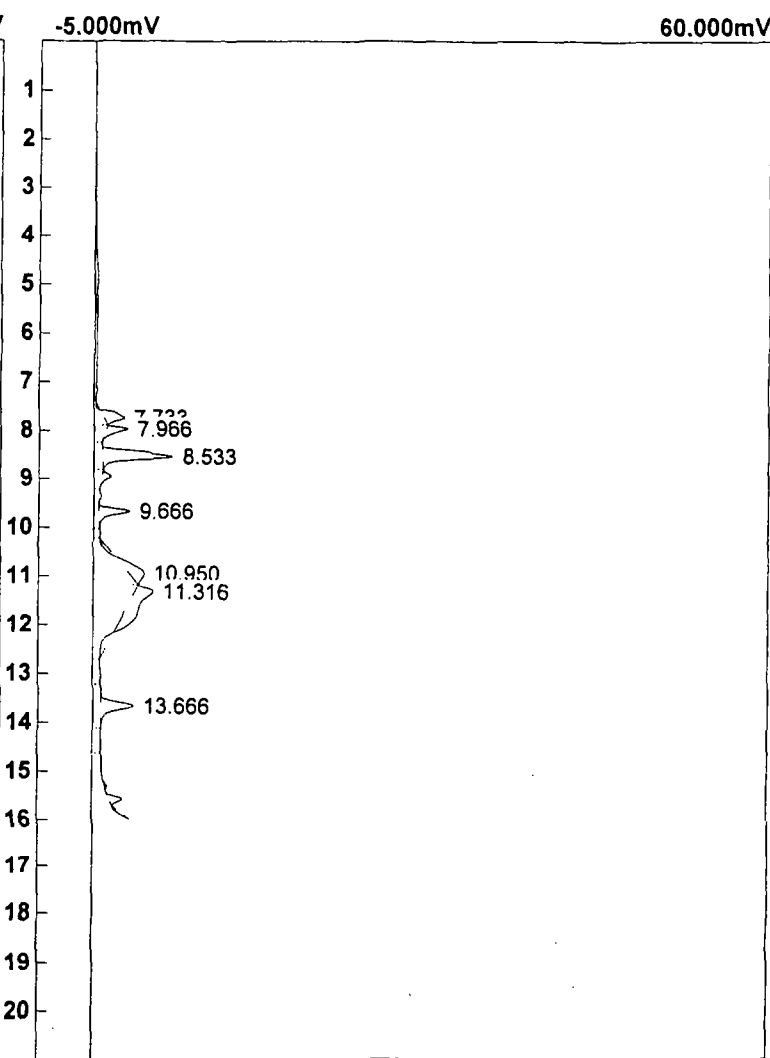
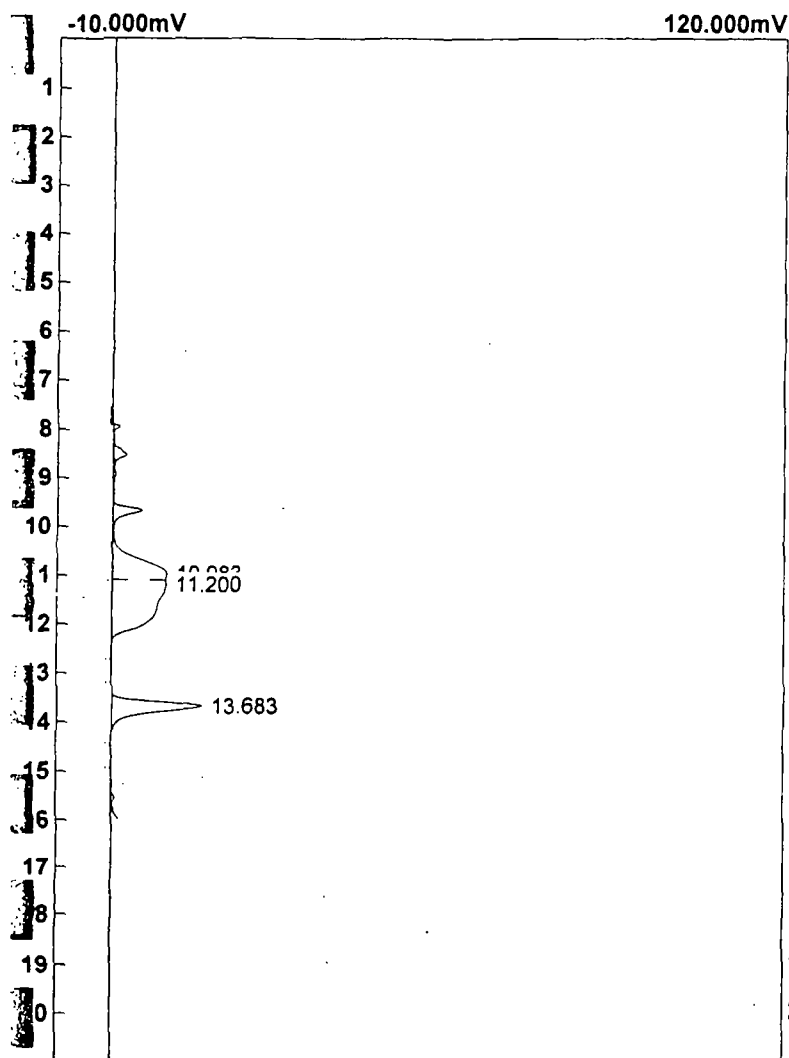
Description: FID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID16.chr ()

Sample: GP-4 @ 24'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
PCE	13.683	231.610	16.1289	ppb
		231.610	16.1289	

Component	Retention	Area	External	Units
PCE	13.666	33.406	14.29	ppb
		33.406	14.29	

Lab name: Geo Lab

Client: Bhate

Client ID: Northingto

Holding time:

Analysis date: 12/12/2000 09:21:51

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID18.CHR ()

Sample: GP-5 @ 24'

Operator: Matt Richards

Lab name: Geo Lab

Client: Bhate

Client ID: Northingto

Holding time:

Analysis date: 12/12/2000 09:21:51

Method: Purge & Trap

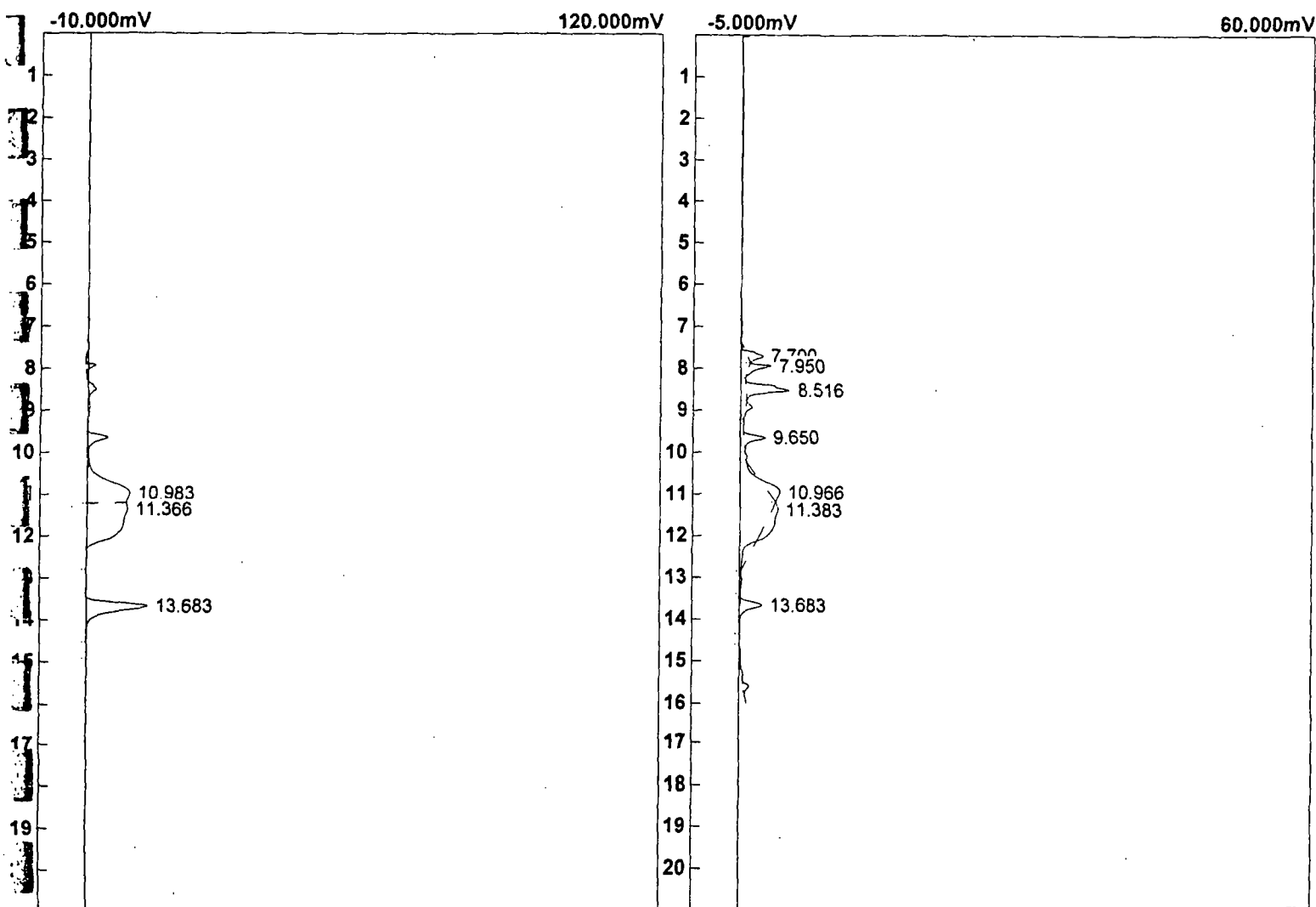
Description: FID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID18.CHR ()

Sample: GP-5 @ 24'

Operator: Matt Richards



Component	Retention	Area	Internal	Units	Component	Retention	Area	External	Units
PCE	13.683	185.132	12.8922	ppb	PCE	13.683	26.971	11.54	ppb
		185.132	12.8922				26.971	11.54	

Lab name: Geo Lab

Client: Bhate

Client ID: Northinto

Holding time:

Analysis date: 12/12/2000 10:02:45

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID19.CHR ()

Sample: GP-6 @ 24'

Operator: Matt Richards

Lab name: Geo Lab

Client: E

Client ID: Northinto

Holding time:

Analysis date: 12/12/2000 10:02:45

Method: Purge & Trap

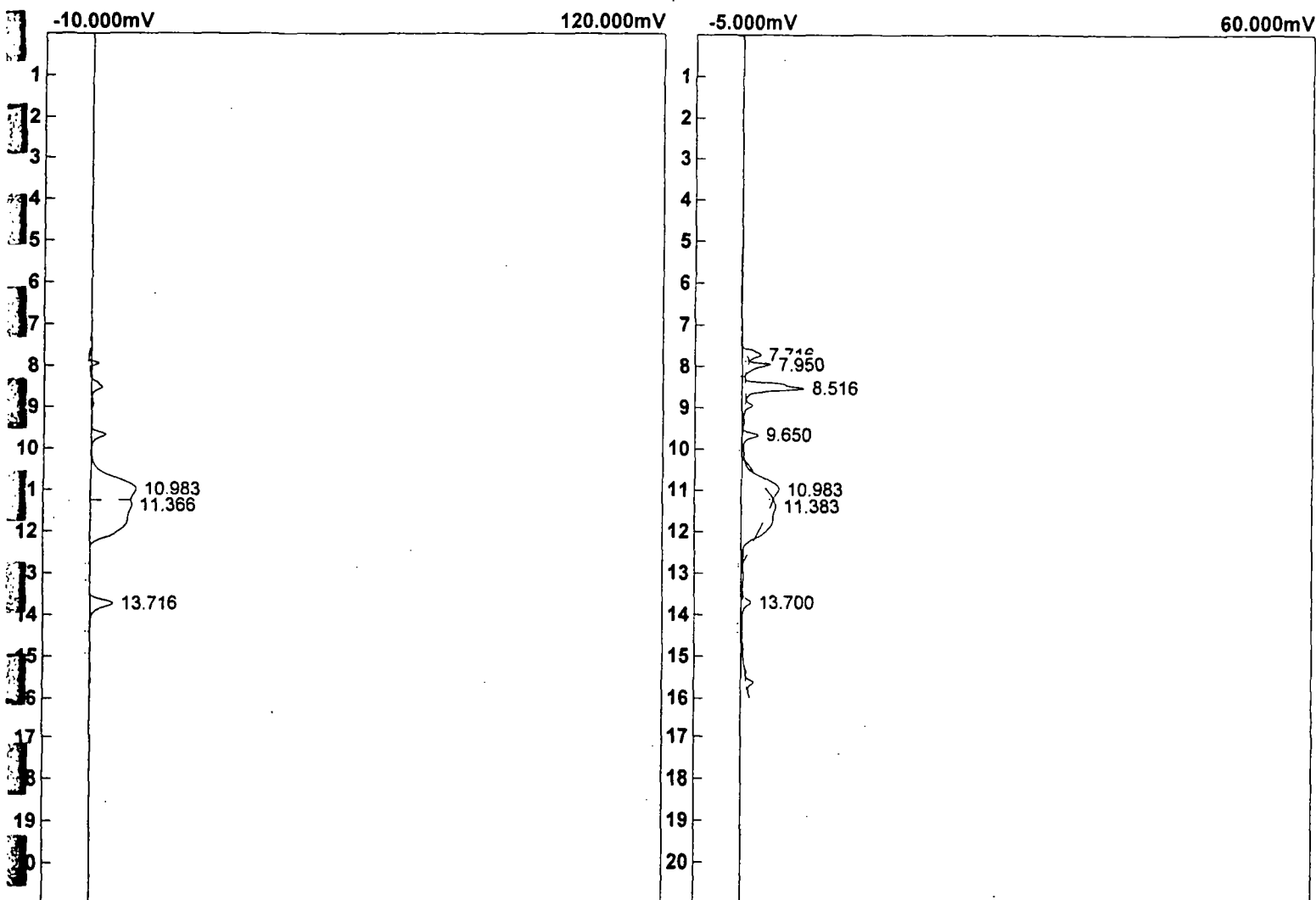
Description: FID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID19.CHR ()

Sample: GP-6 @ 24'

Operator: Matt Richards



Component	Retention	Area	Internal	Units	Component	Retention	Area	External	Units
PCE	13.716	67.260	4.6839	ppb	PCE	13.700	10.582	4.53	ppb
		67.260	4.6839				10.582	4.53	

Lab name: Geo Lab

Client: Bhate

Client ID: Northingto

Holding time:

Analysis date: 12/12/2000 11:01:29

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID20.CHR ()

Sample: rinsate

Operator: Matt Richards

Lab name: Geo Lab

Client: F te

Client ID: Northingto

Holding time:

Analysis date: 12/12/2000 11:01:29

Method: Purge & Trap

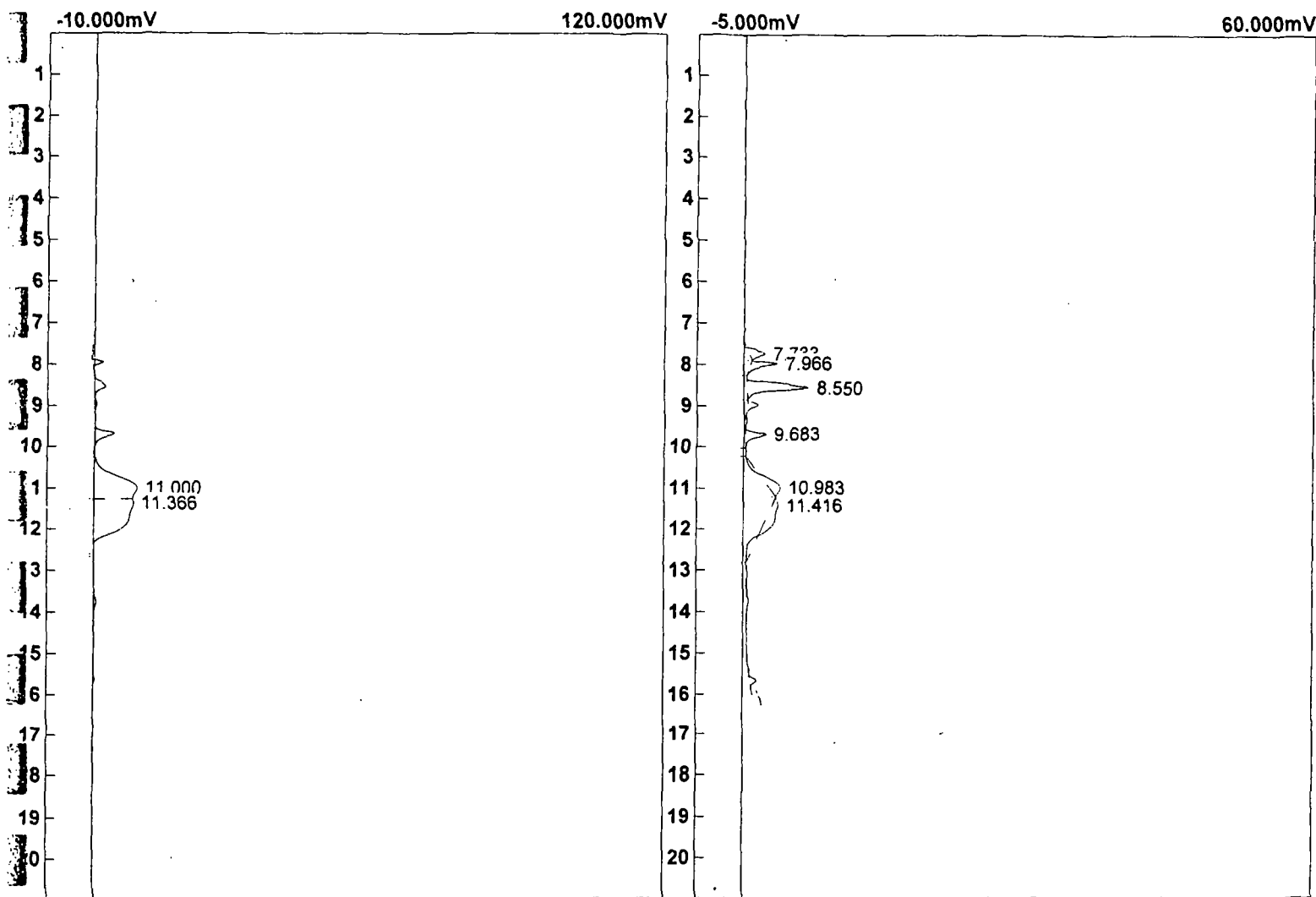
Description: FID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID20.CHR ()

Sample: rinsate

Operator: Matt Richards



Component	Retention	Area	Internal	Units
-----------	-----------	------	----------	-------

		0.000	0.0000	
--	--	-------	--------	--

Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

		0.000	0.00	
--	--	-------	------	--

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/12/2000 11:21:07

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID21.CHR ()

Sample: GP-7 @24'

Operator: Matt Richards

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/12/2000 11:21:07

Method: Purge & Trap

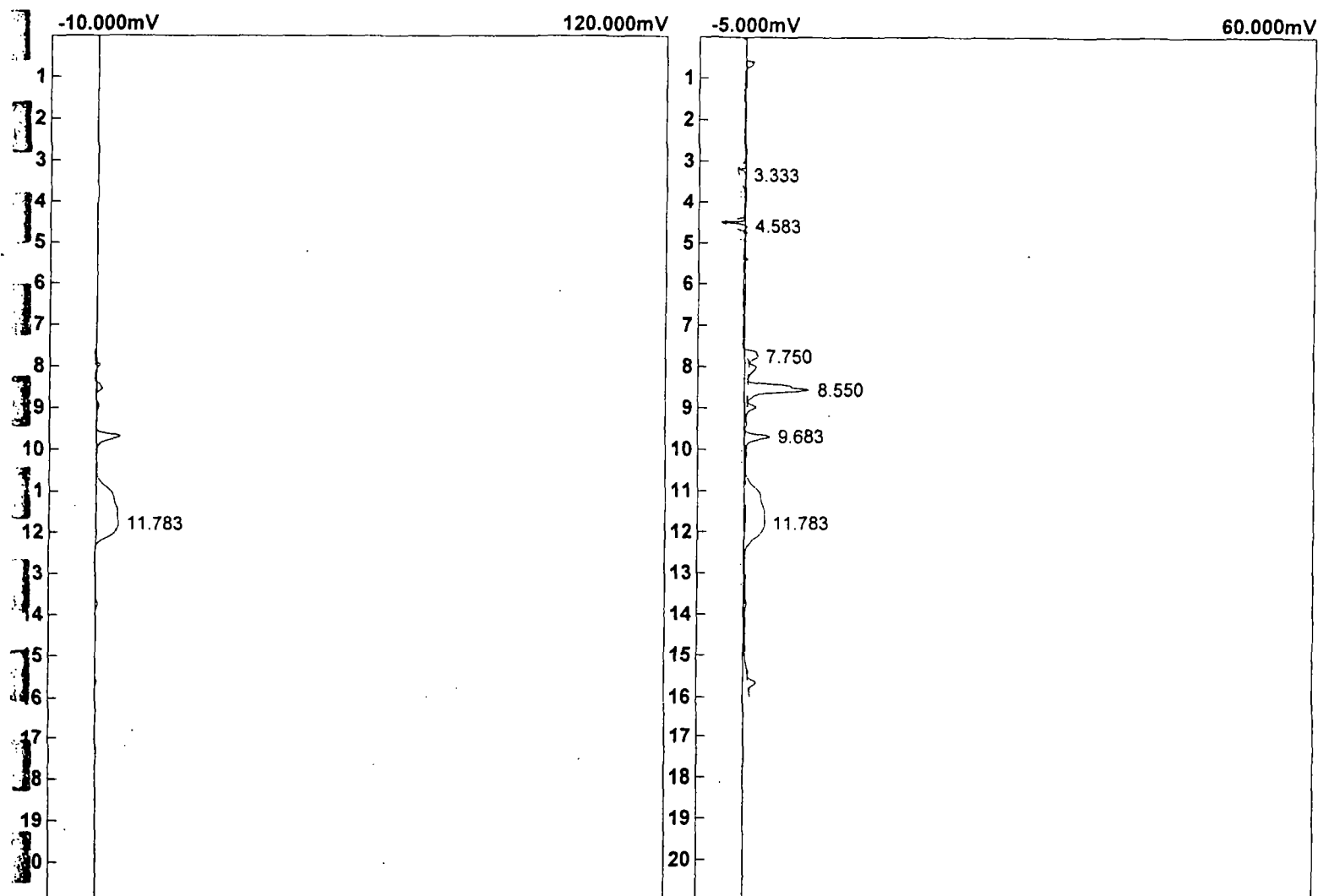
Description: FID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID21.CHR ()

Sample: GP-7 @24'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
-----------	-----------	------	----------	-------

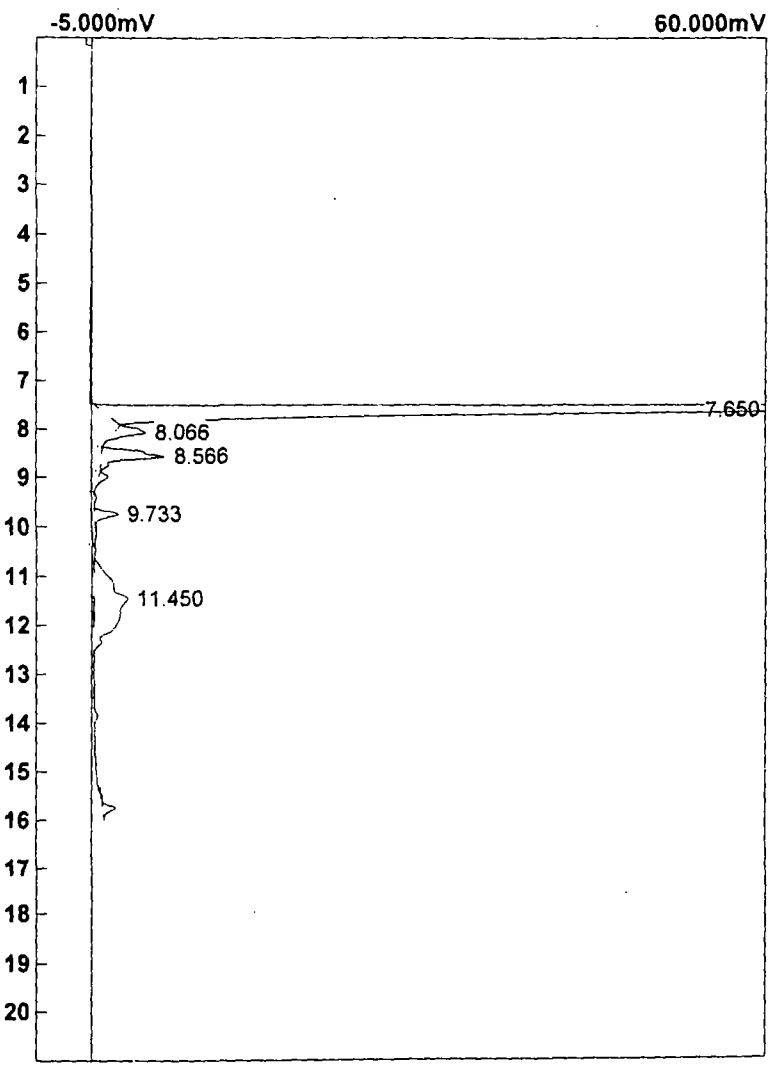
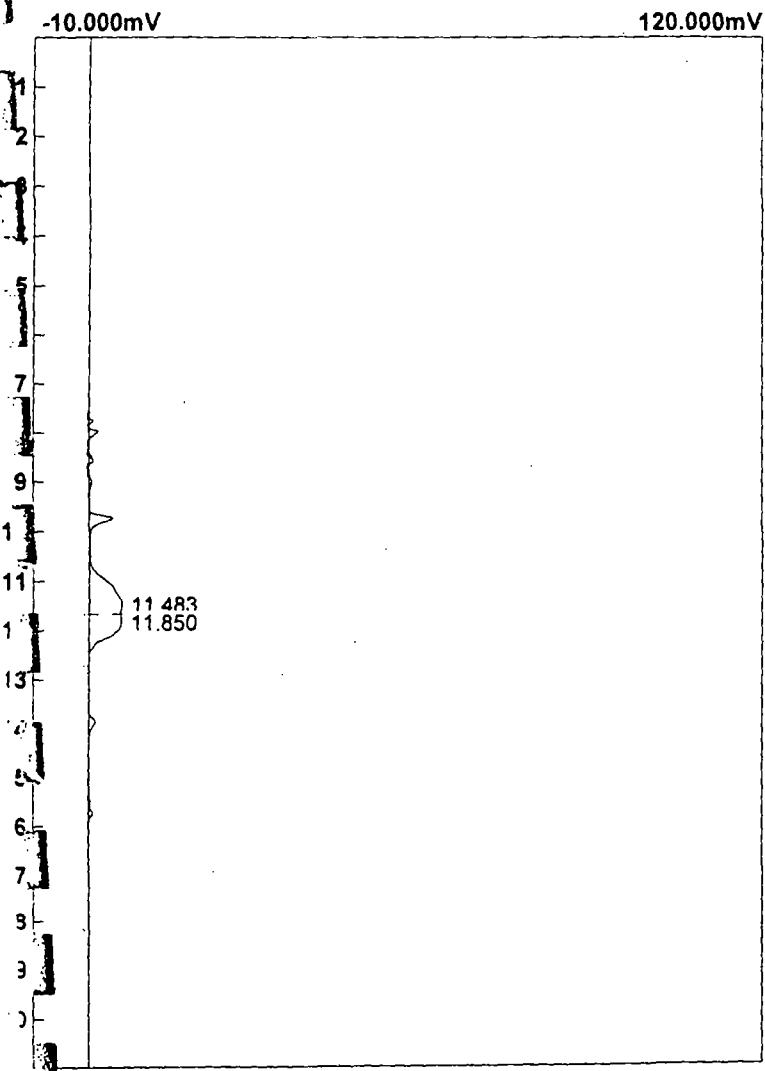
		0.000	0.0000	
--	--	-------	--------	--

Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

		0.000	0.00	
--	--	-------	------	--

Client: Bhate  
 Client ID: Northin  
 Holding time:  
 Analysis date: 12/12/2000 13:48:19  
 Method: Purge & Trap  
 Description: PID Detector  
 Control filename: DEFAULT.CON  
 Data file: C:\PEAKW95\Bhate1200PID24.CHR ()  
 Sample: GP-8 @ 24'  
 Operator: Matt Richards

Lab name: Geo Lab  
 Client: Bhate  
 Client ID: Northinto  
 Holding time:  
 Analysis date: 12/12/2000 13:48:19  
 Method: Purge & Trap  
 Description: FID Detector  
 Control filename: DEFAULT.CON  
 Data file: C:\PEAKW95\Bhate1200FID24.CHR ()  
 Sample: GP-8 @ 24'  
 Operator: Matt Richards



Component	Retention	Area	Internal	Units
		0.000	0.0000	

Component	Retention	Area	External	Units
		0.000	0.00	

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/12/2000 14:33:59

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID26.CHR ()

Sample: GP-8D @ 52'

Operator: Matt Richards

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/12/2000 14:33:59

Method: Purge & Trap

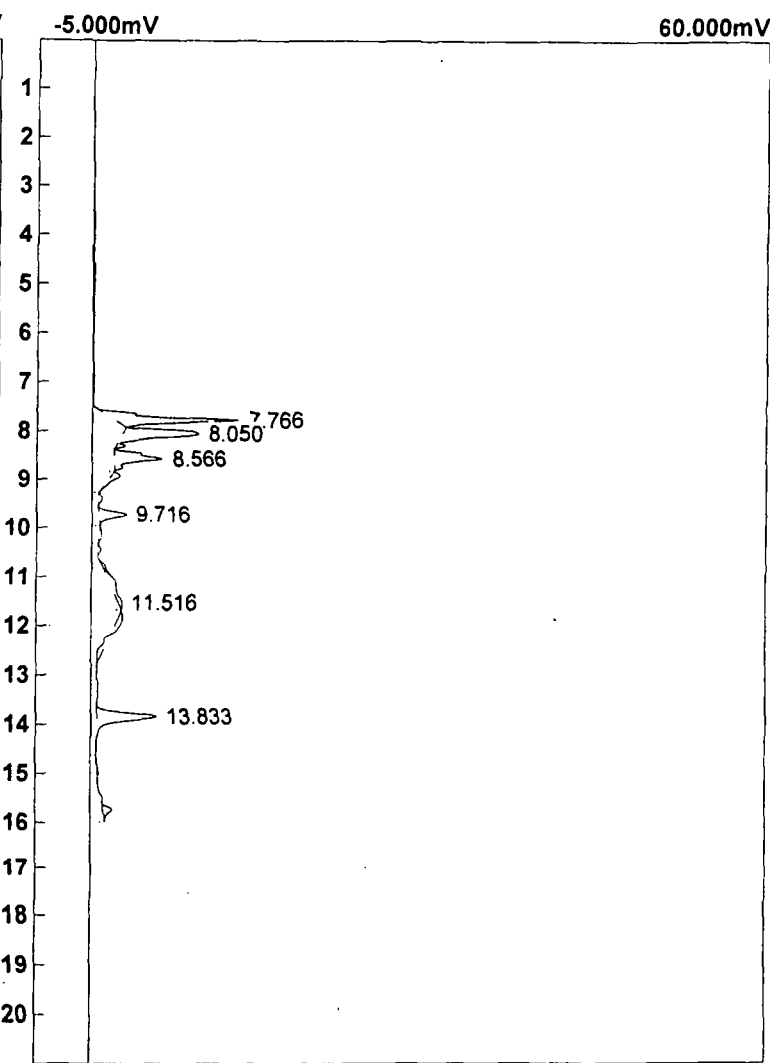
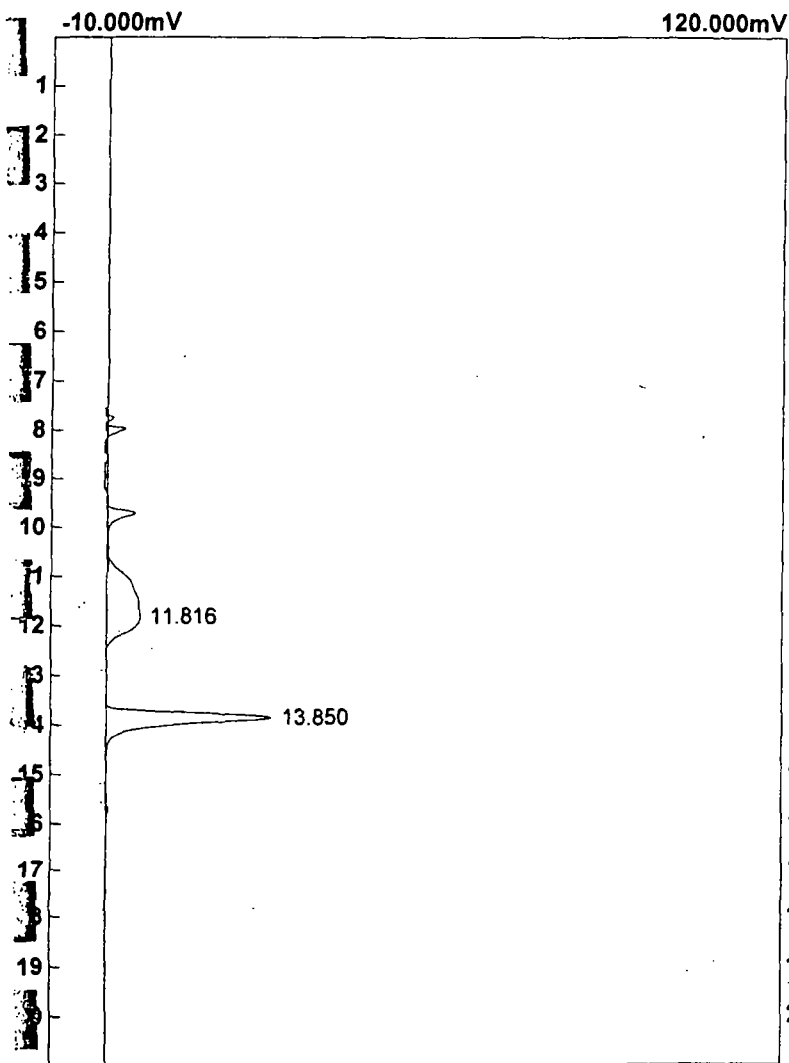
Description: FID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID26.CHR ()

Sample: GP-8D @ 52'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
PCE	13.850	450.002	30.3873	ppb
		450.002	30.3873	

Component	Retention	Area	External	Units
PCE	13.833	60.894	26.51	ppb
		60.894	26.51	

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northinto

Holding time:

Analysis date: 12/13/2000 09:11:30

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: Bhate1200PID36.CHR ()

Sample: GP-9D @ 52'

Operator: Matt Richards

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northinto

Holding time:

Analysis date: 12/13/2000 09:11:30

Method: Purge & Trap

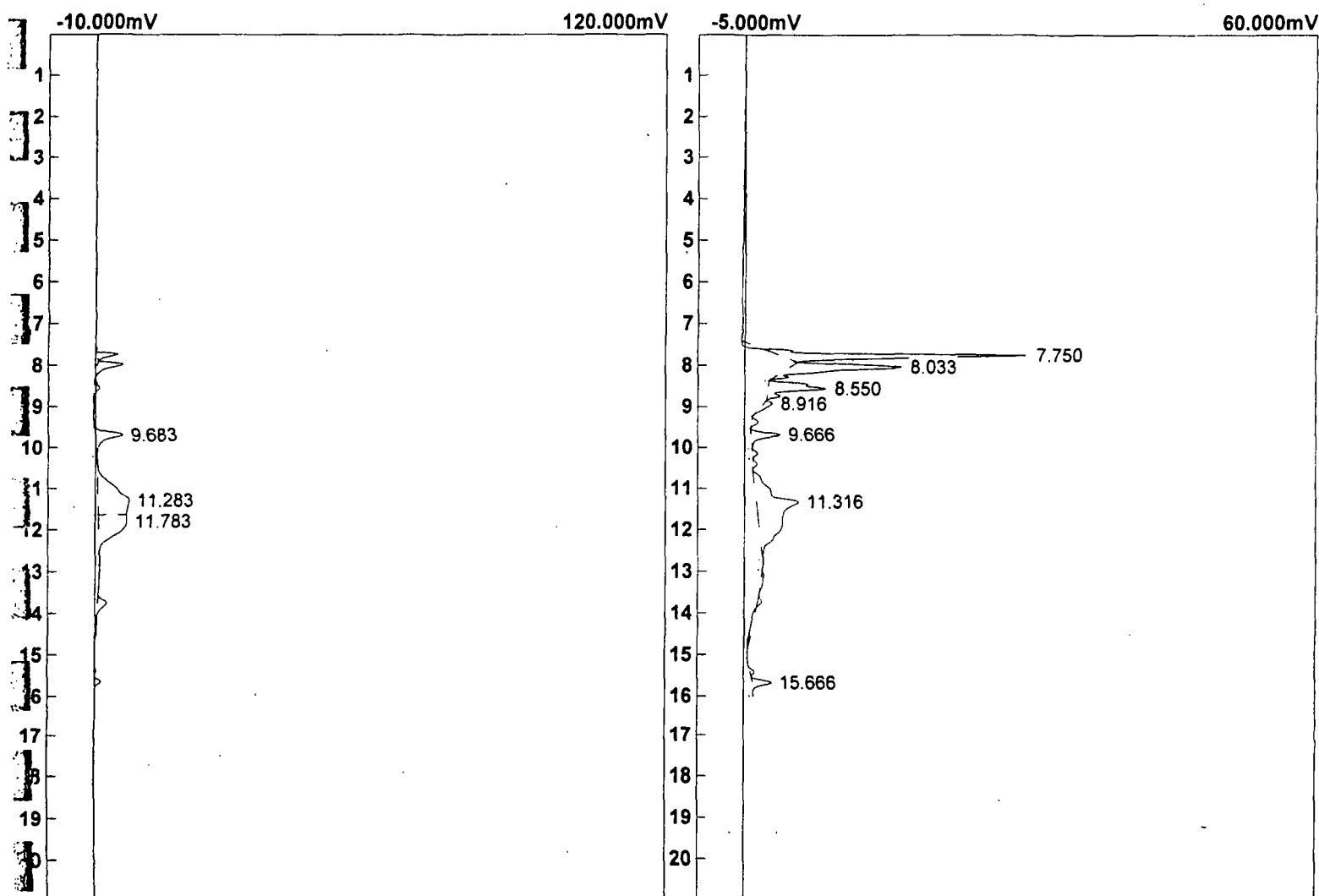
Description: FID Detector

Control filename: DEFAULT.CON

Data file: Bhate1200FID36.CHR ()

Sample: GP-9D @ 52'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
-----------	-----------	------	----------	-------

		0.000	0.0000	
--	--	-------	--------	--

Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

		0.000	0.00	
--	--	-------	------	--

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/13/2000 09:36:23

Method: Purge & Trap

Description: PID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID37.CHR ()

Sample: GP-9 @ 24'

Operator: Matt Richards

Lab name: Geo Lab

Client: E

Client ID: Northingto

Holding time:

Analysis date: 12/13/2000 09:36:23

Method: Purge & Trap

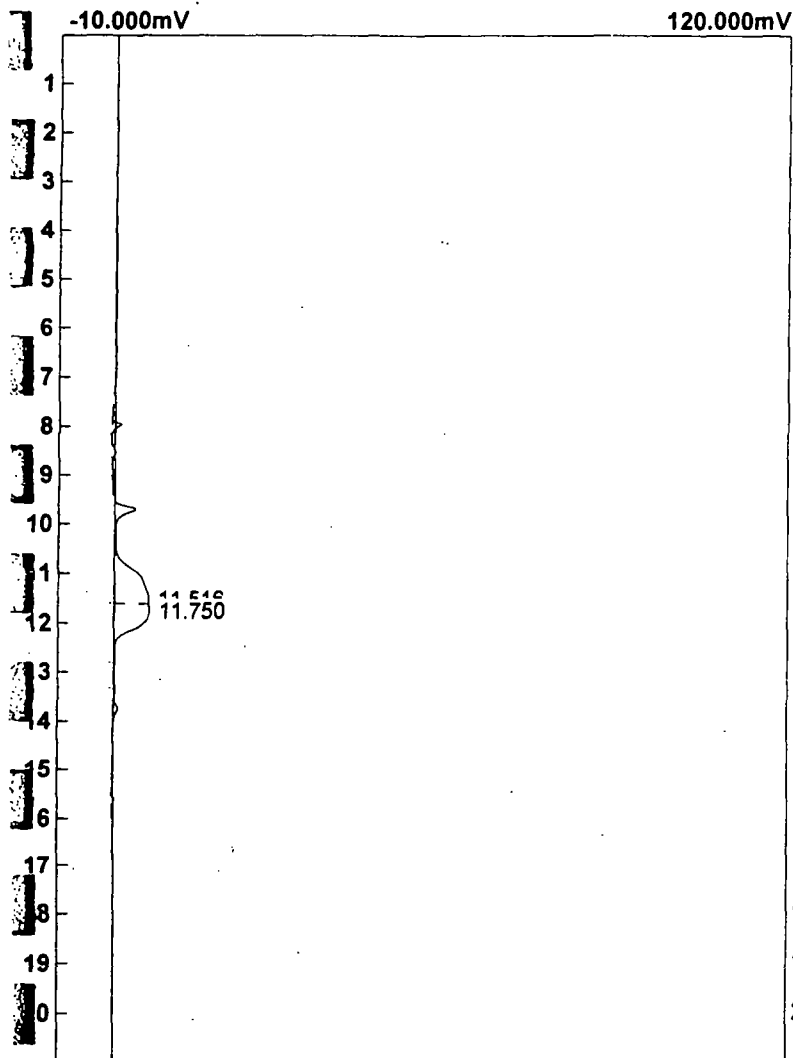
Description: FID Detector

Control filename: DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID37.CHR ()

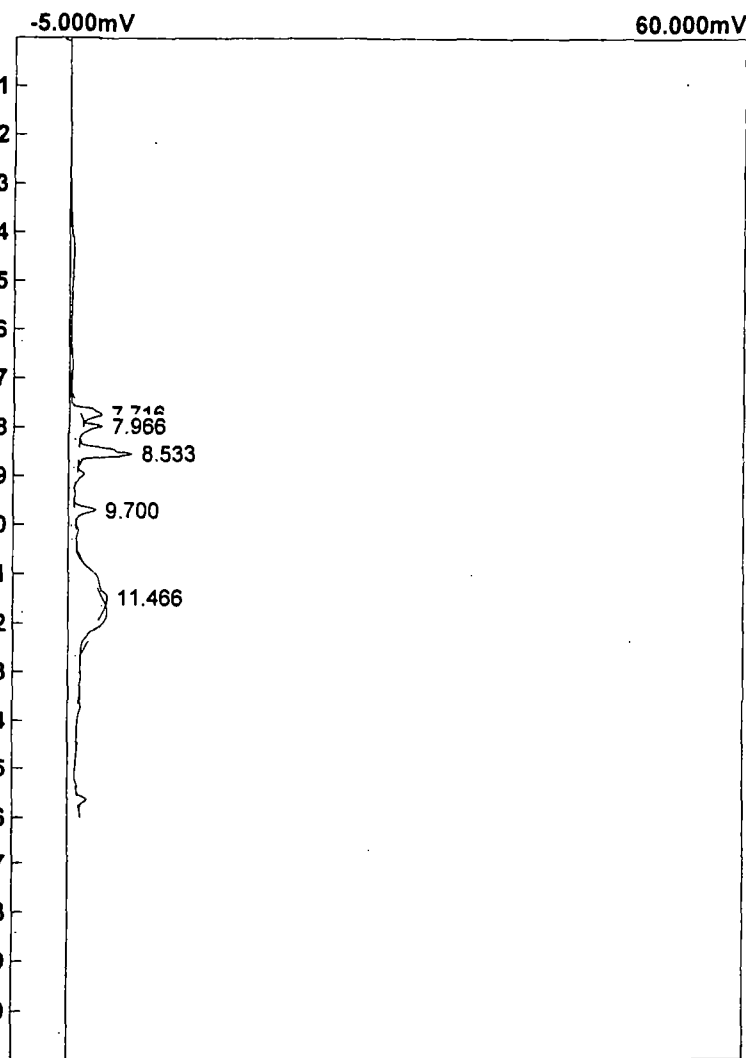
Sample: GP-9 @ 24'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
-----------	-----------	------	----------	-------

		0.000	0.0000	
--	--	-------	--------	--



Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

		0.000	0.00	
--	--	-------	------	--

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/13/2000 13:58:28

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID45.CHR ()

Sample: GP-1D@ 52' (25x dil)

Operator: Matt Richards

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/13/2000 13:58:28

Method: Purge & Trap

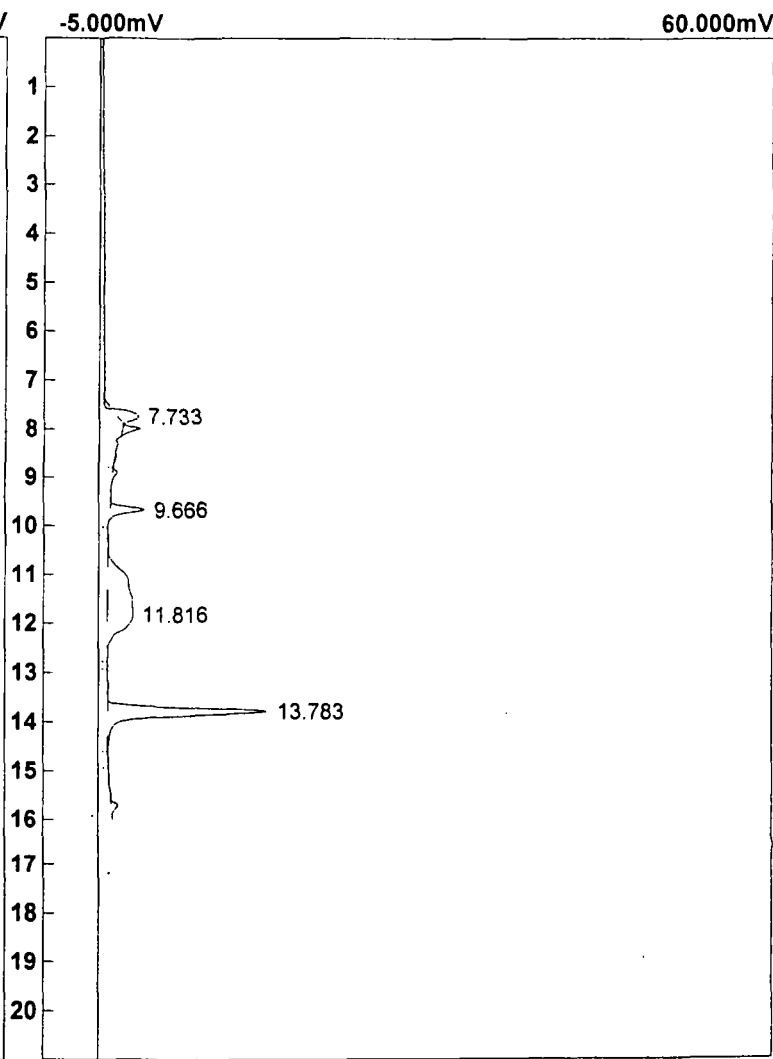
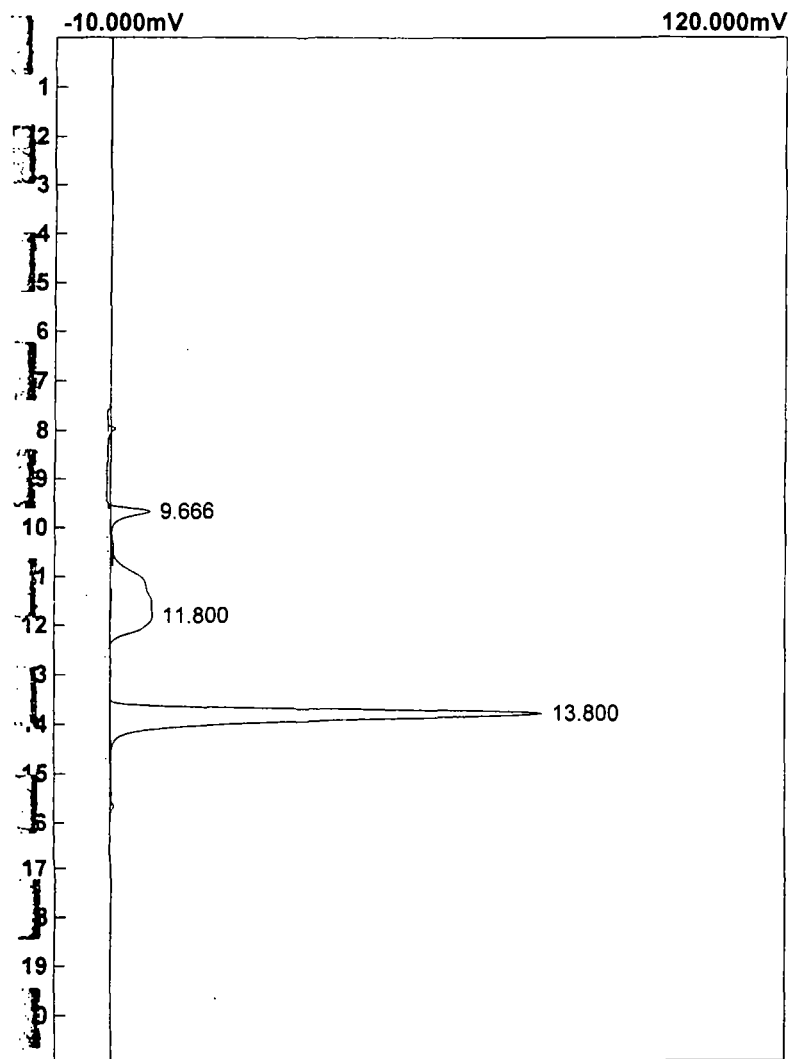
Description: FID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID45.chr ()

Sample: GP-1D@ 52' (25x dil)

Operator: Matt Richards



Component	Retention	Area	Internal	Units
PCE	13.800	1208.509	1508.2809	ppb
		1208.509	1508.2809	

Component	Retention	Area	External	Units
PCE	13.783	161.984	1260.42	ppb
		161.984	1260.42	

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/13/2000 14:21:43

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID46.CHR ()

Sample: GP-1D rinsate

Operator: Matt Richards

Lab name: Geo Lab  
Client: B' e  
Client ID: Northingto

Holding time:

Analysis date: 12/13/2000 14:21:43

Method: Purge & Trap

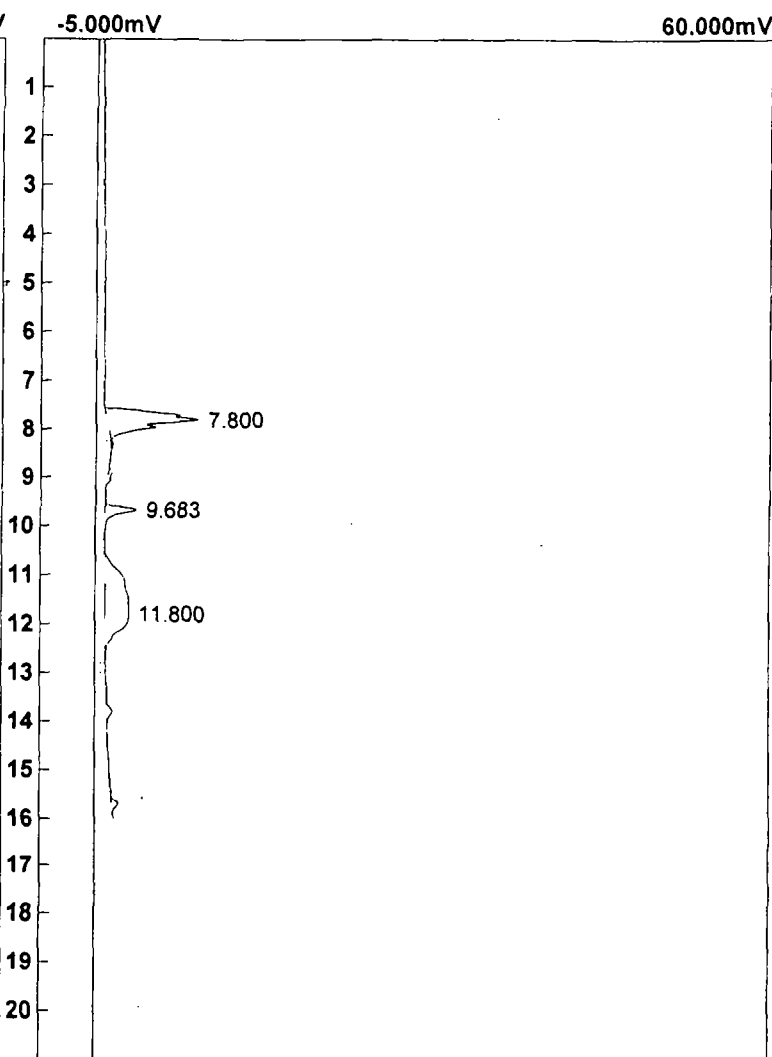
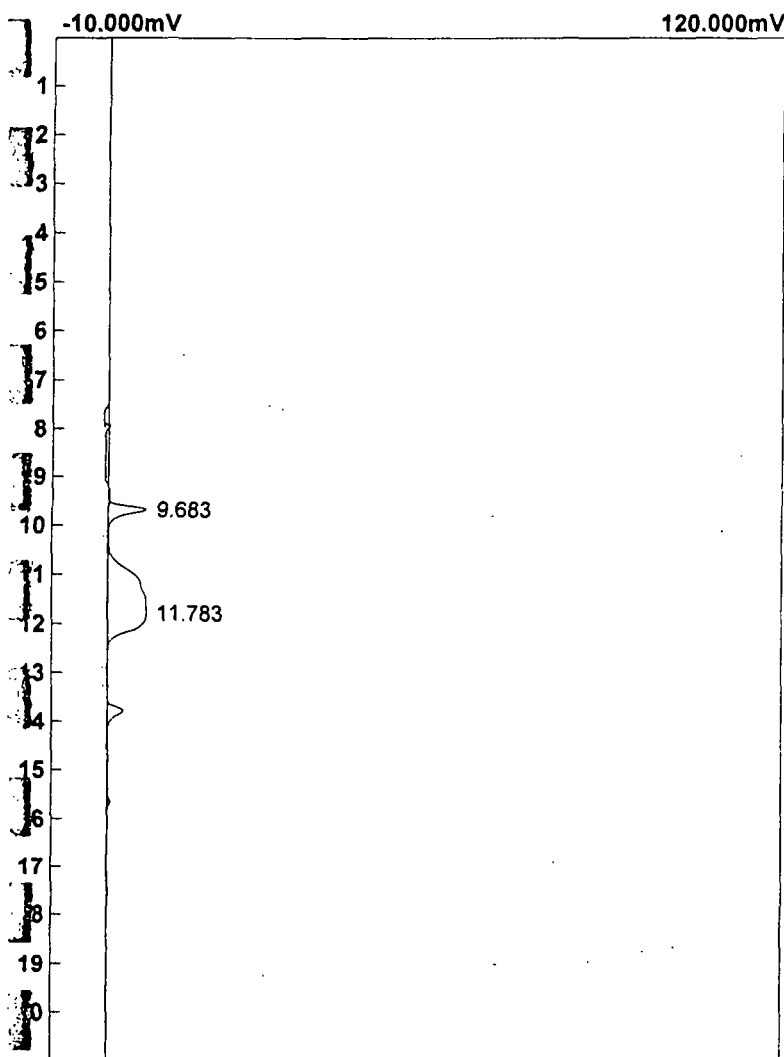
Description: FID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID46.chr ()

Sample: GP-1D rinsate

Operator: Matt Richards



Component	Retention	Area	Internal	Units
-----------	-----------	------	----------	-------

		0.000	0.0000	
--	--	-------	--------	--

Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

		0.000	0.00	
--	--	-------	------	--

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northinto

Holding time:

Analysis date: 12/14/2000 09:25:45

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID53.CHR ()

Sample: GP10 @ 48'

Operator: Matt Richards

Lab name: Geo Lab

Client: B

Client ID: Northinto

Holding time:

Analysis date: 12/14/2000 09:25:45

Method: Purge & Trap

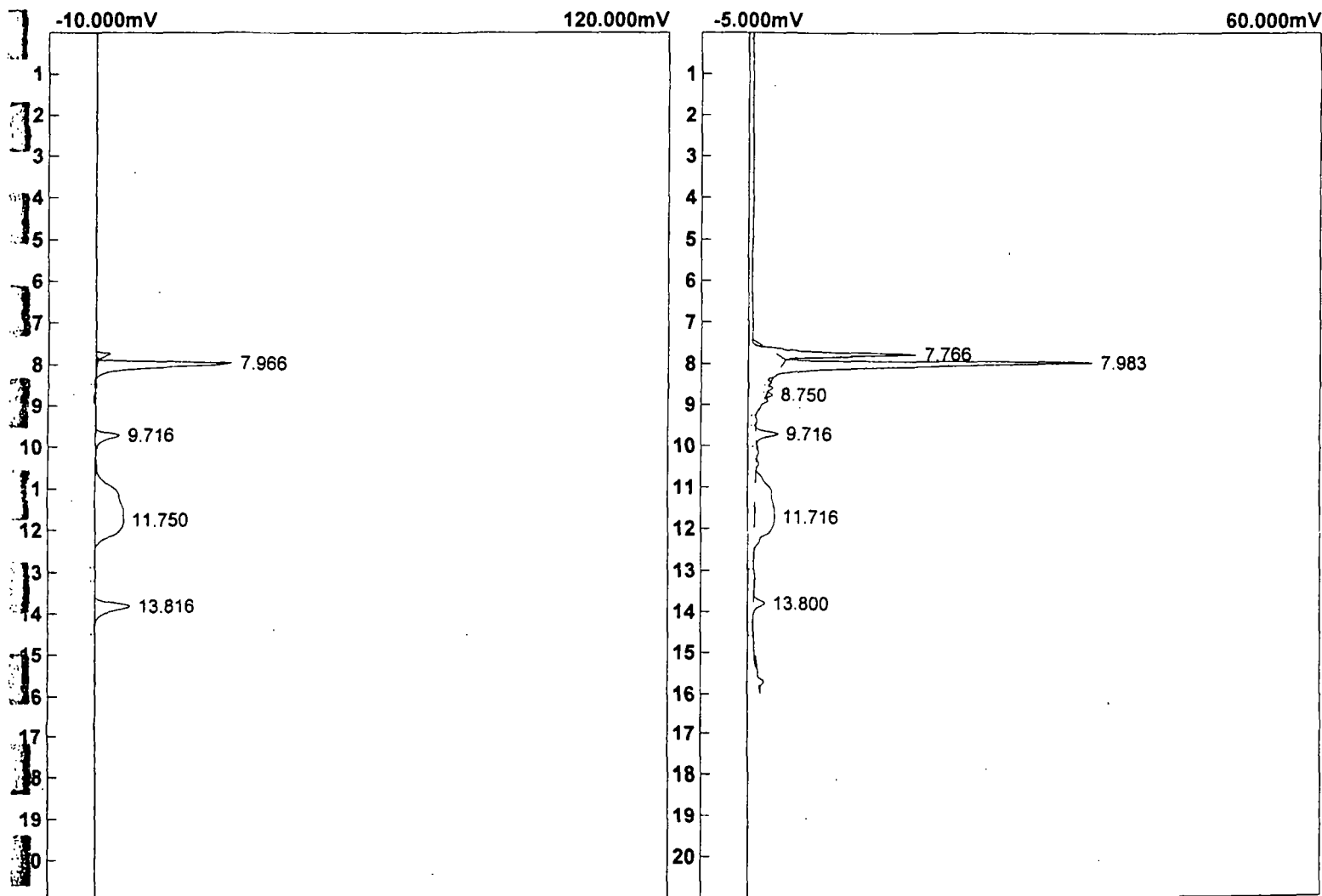
Description: FID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID53.CHR ()

Sample: GP10 @ 48'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
-----------	-----------	------	----------	-------

PCE	13.816	104.220	5.2368	ppb
		104.220	5.2368	

Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

PCE	13.800	13.382	4.96	ppb
		13.382	4.96	

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/14/2000 09:53:43

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID54.CHR ()

Sample: GP10 rinsate

Operator: Matt Richards

Lab name: Geo Lab  
Client: E...e  
Client ID: Northingto

Holding time:

Analysis date: 12/14/2000 09:53:43

Method: Purge & Trap

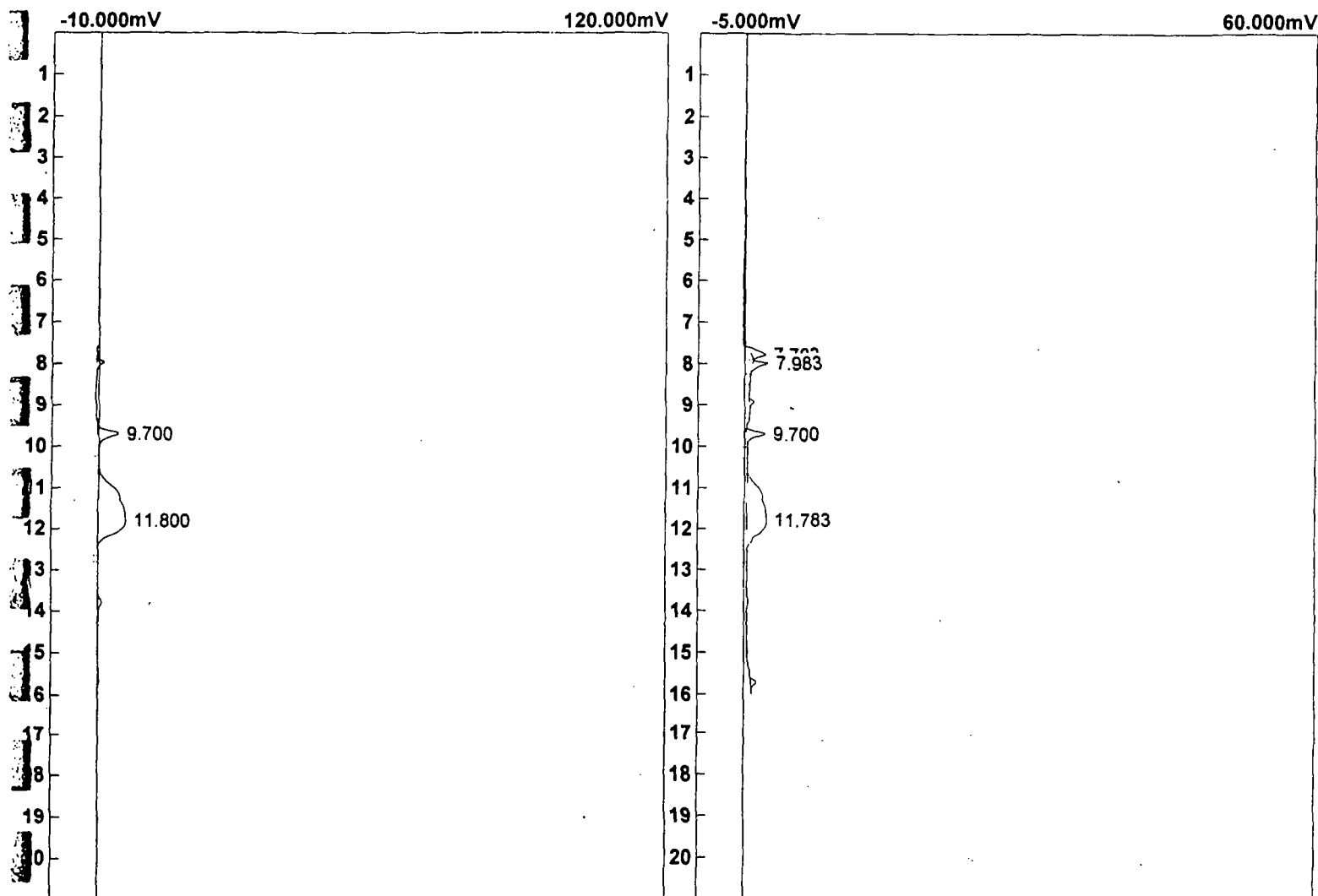
Description: FID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID54.CHR ()

Sample: GP10 rinsate

Operator: Matt Richards



Component	Retention	Area	Internal	Units
-----------	-----------	------	----------	-------

		0.000	0.0000	
--	--	-------	--------	--

Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

		0.000	0.00	
--	--	-------	------	--

Lab name: Geo Lab

Client: Bhate

Client ID: Northingto

Holding time:

Analysis date: 12/14/2000 10:51:44

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID55.CHR ()

Sample: GP-11 @ 52'

Operator: Matt Richards

Lab name: Geo Lab

Client: Bhate

Client ID: Northingto

Holding time:

Analysis date: 12/14/2000 10:51:44

Method: Purge & Trap

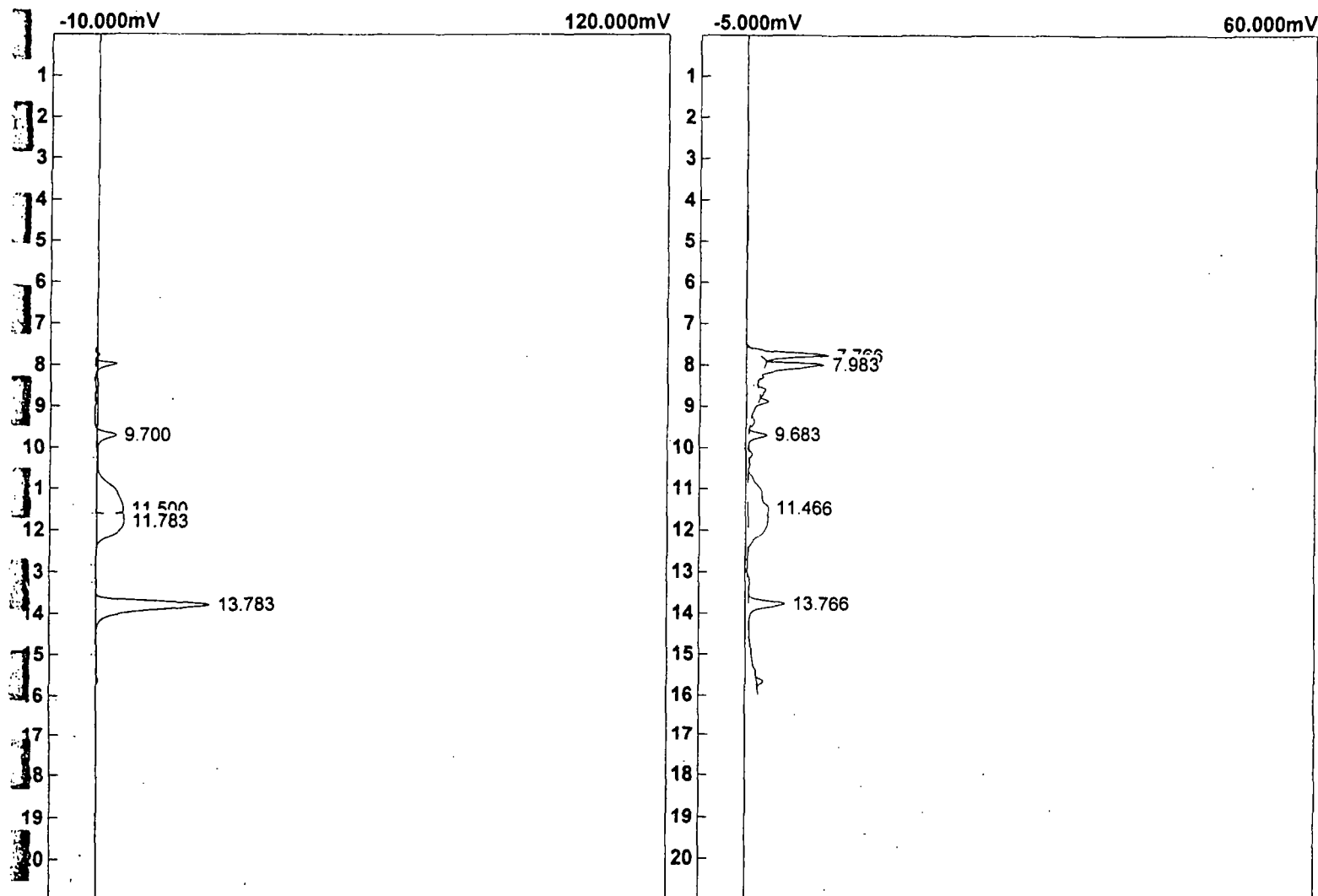
Description: FID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID55.CHR ()

Sample: GP-11 @ 52'

Operator: Matt Richards



Component	Retention	Area	Internal	Units	Component	Retention	Area	External	Units
PCE	13.783	359.132	18.0455	ppb	PCE	13.766	43.600	16.17	ppb
		359.132	18.0455				43.600	16.17	

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/14/2000 12:19:13

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID57.CHR ()

Sample: GP-12 @ 52'

Operator: Matt Richards

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/14/2000 12:19:13

Method: Purge & Trap

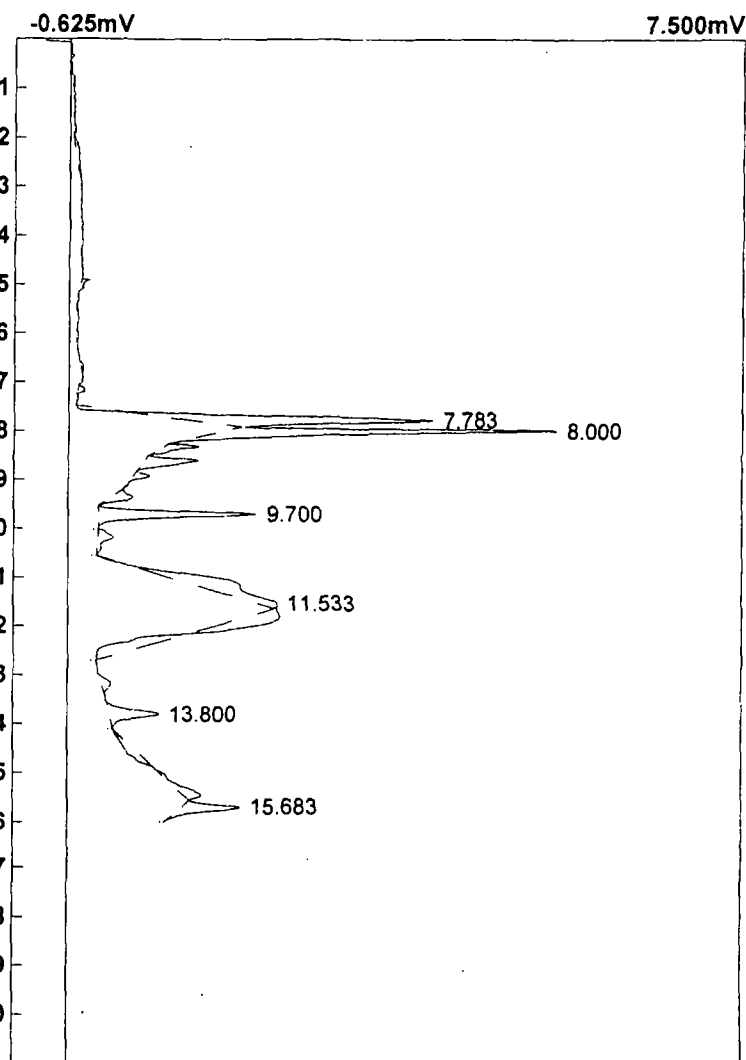
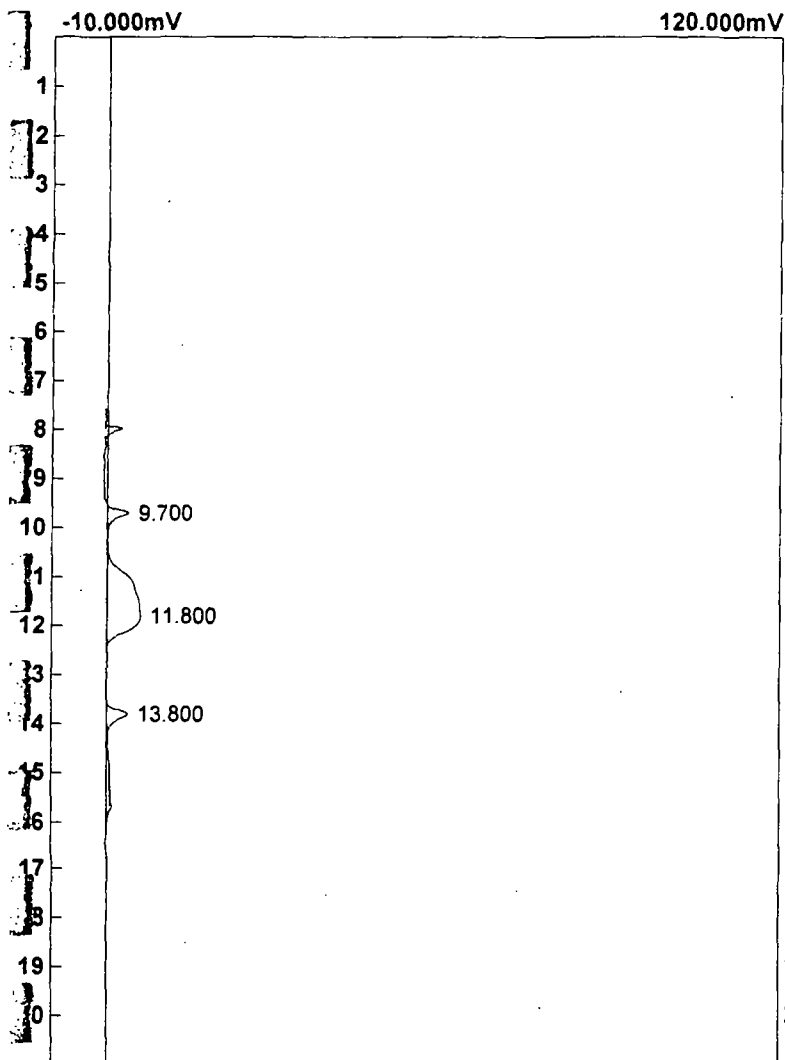
Description: FID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID57.CHR ()

Sample: GP-12 @ 52'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
PCE	13.800	49.774	2.5010	ppb
		49.774	2.5010	

Component	Retention	Area	External	Units
PCE	13.800	6.383	2.37	ppb
		6.383	2.37	

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/14/2000 15:09:15

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200PID61.CHR ()

Sample: GP-7 @ 52'

Operator: Matt Richards

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/14/2000 15:09:15

Method: Purge & Trap

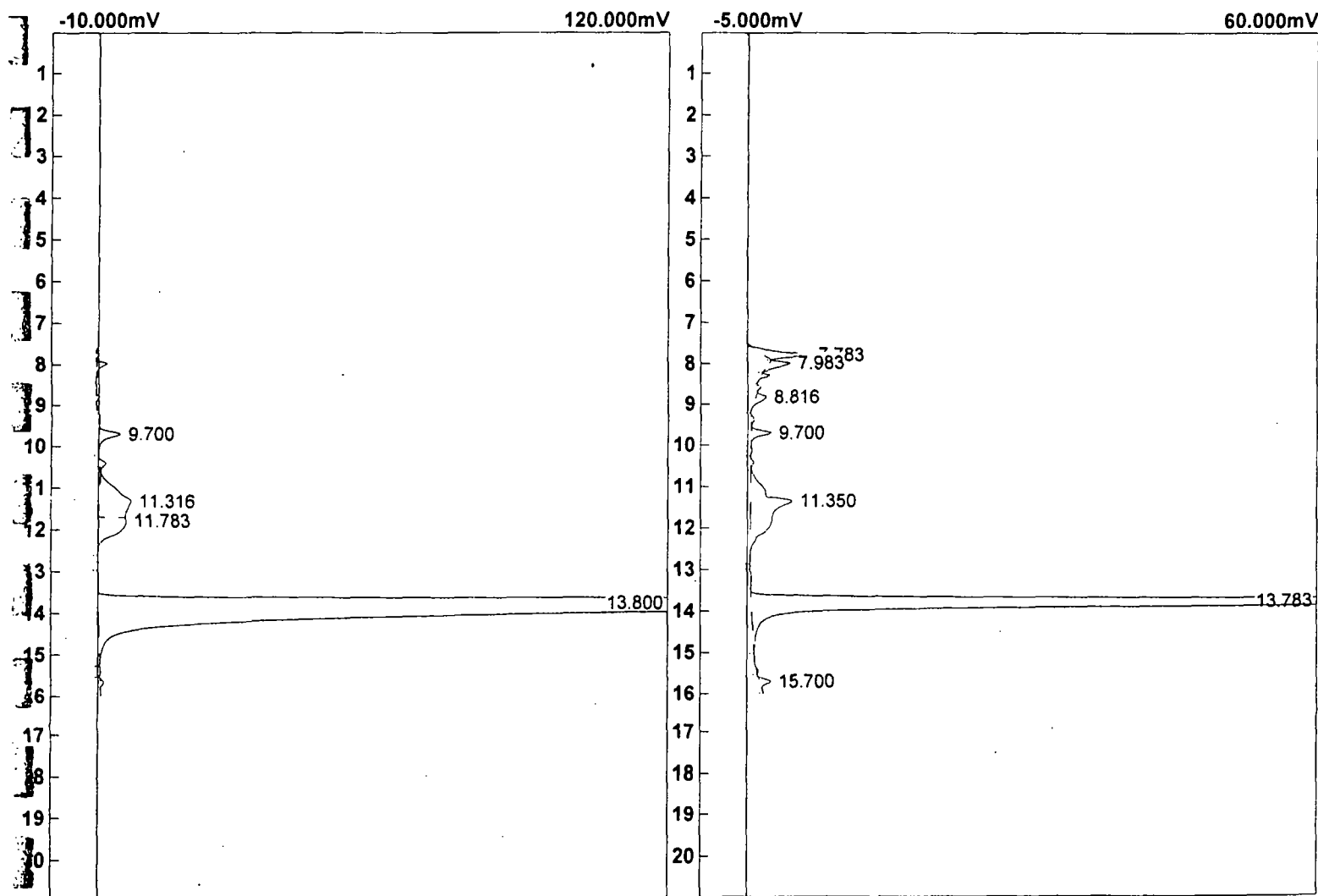
Description: FID Detector

Control filename: C:\PEAKW95\DEFAULT.CON

Data file: C:\PEAKW95\Bhate1200FID61.CHR ()

Sample: GP-7 @ 52'

Operator: Matt Richards



Component	Retention	Area	Internal	Units	Component	Retention	Area	External	Units
PCE	13.800	6301.870	316.6528	ppb	PCE	13.783	1521.542	533.81	ppb
		6301.870	316.6528				1521.542	533.81	

Lab name: Geo Lab

Client: Bhate

Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 08:38:58

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200PID75.CHR ()

Sample: GP-13 @ 52'

Operator: Matt Richards

Lab name: Geo Lab

Client: E

Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 08:38:58

Method: Purge & Trap

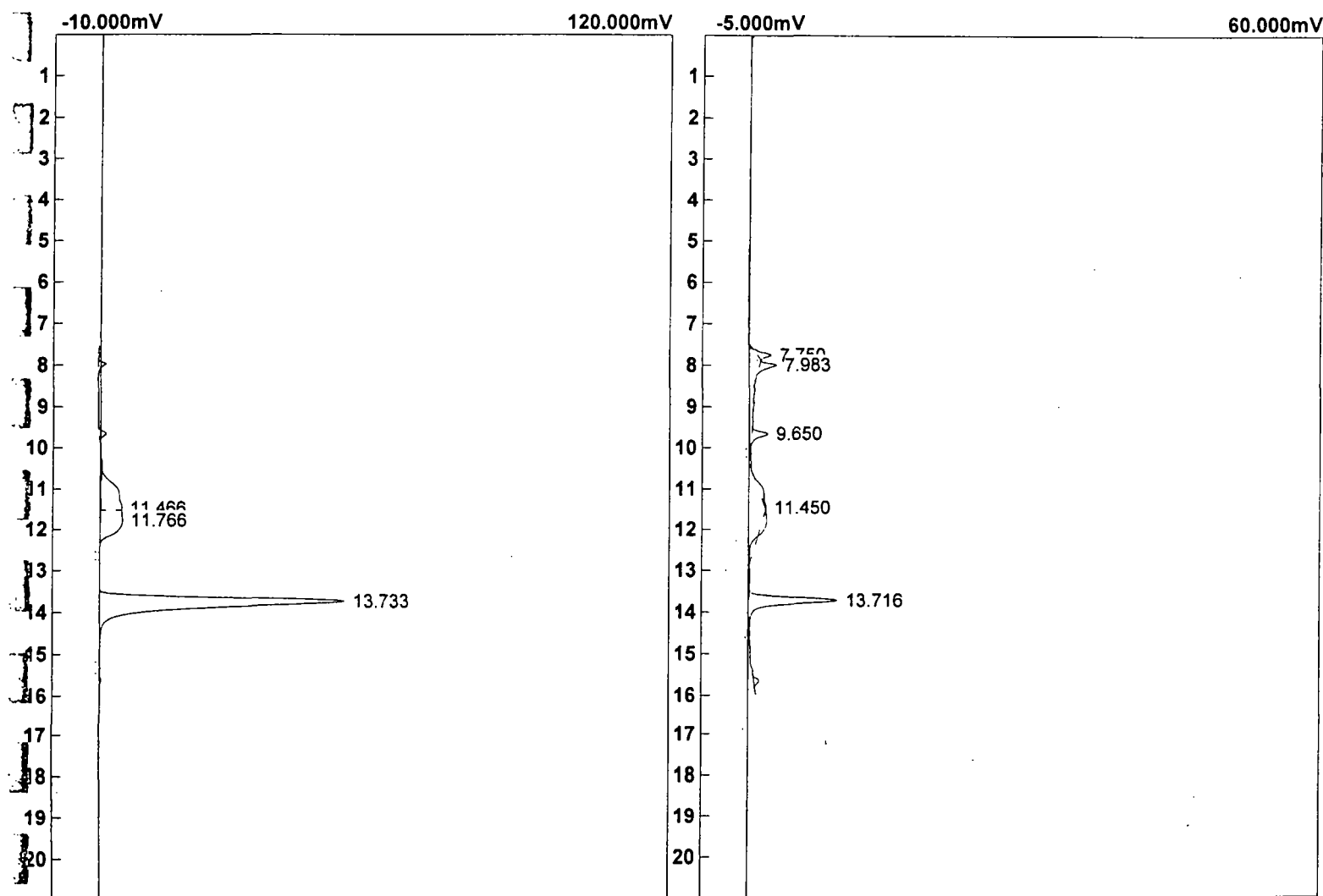
Description: FID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200FID75.CHR ()

Sample: GP-13 @ 52'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
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PCE	13.733	821.118	412.5907	ppb
-----	--------	---------	----------	-----

		821.118	412.5907	
--	--	---------	----------	--

Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

PCE	13.716	105.344	385.31	ppb
-----	--------	---------	--------	-----

		105.344	385.31	
--	--	---------	--------	--

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 09:19:36

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200PID76.CHR ()

Sample: GP-14 @ 50' 10x d.i

Operator: Matt Richards

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 09:19:36

Method: Purge & Trap

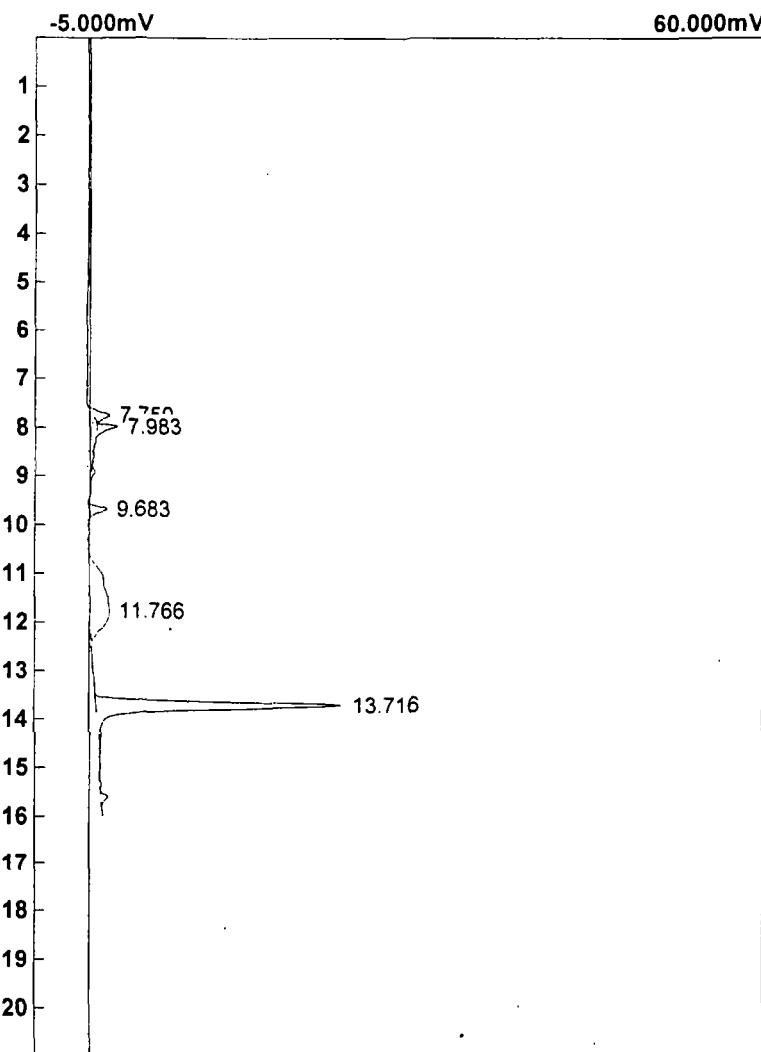
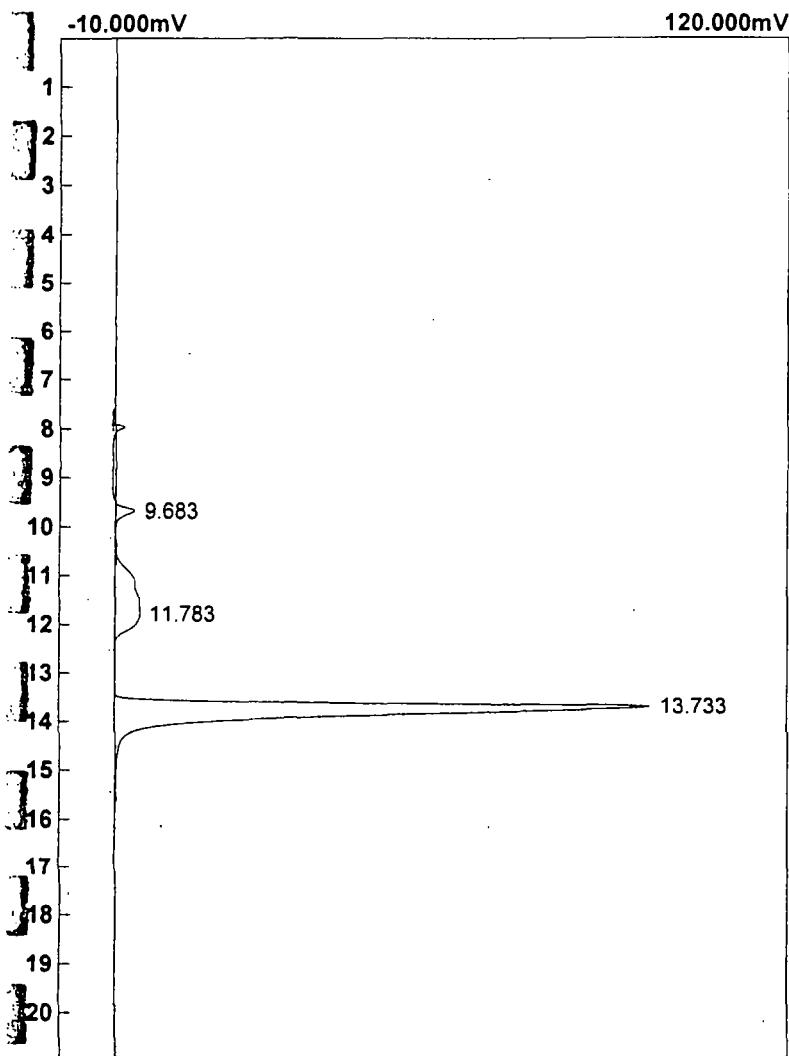
Description: FID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200FID76.CHR ()

Sample: GP-14 @ 50' 10x d.i

Operator: Matt Richards



Component	Retention	Area	Internal	Units
PCE	13.733	1589.446	798.6558	ppb
		1589.446	798.6558	

Component	Retention	Area	External	Units
PCE	13.716	242.616	887.40	ppb
		242.616	887.40	

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 11:43:33

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200PID78.CHR ()

Sample: GP-15@ 50'

Operator: Matt Richards

Lab name: Geo Lab

Client: Bhate

Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 11:43:33

Method: Purge & Trap

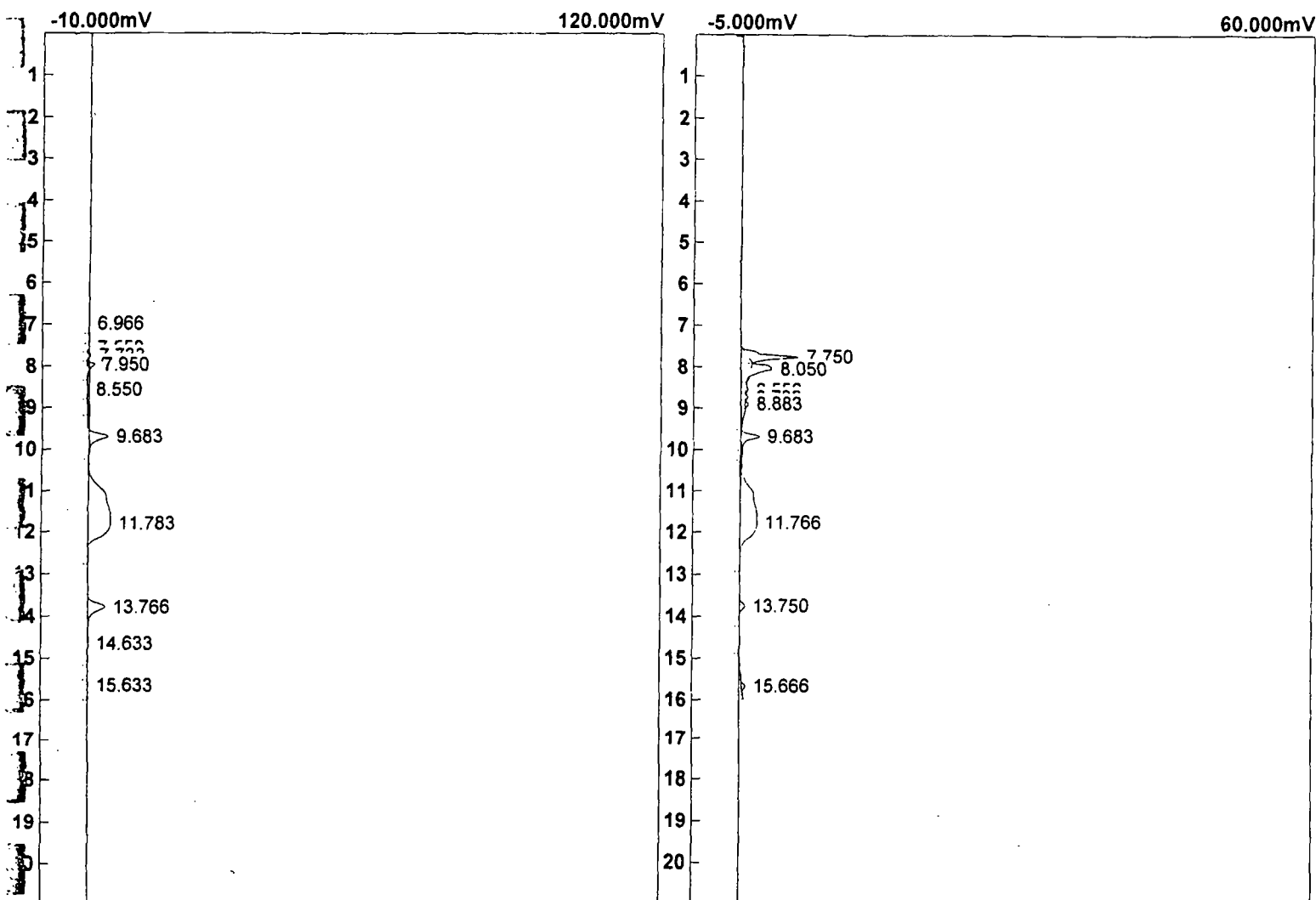
Description: FID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200FID78.CHR ()

Sample: GP-15@ 50'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
PCE	13.766	51.662	2.5959	ppb
		51.662	2.5959	

Component	Retention	Area	External	Units
PCE	13.750	7.162	2.62	ppb
		7.162	2.62	

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 14:15:27

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200PID81.CHR ()

Sample: GP-16 @ 70'

Operator: Matt Richards

Lab name: Geo Lab  
Client: Bhate

Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 14:15:27

Method: Purge & Trap

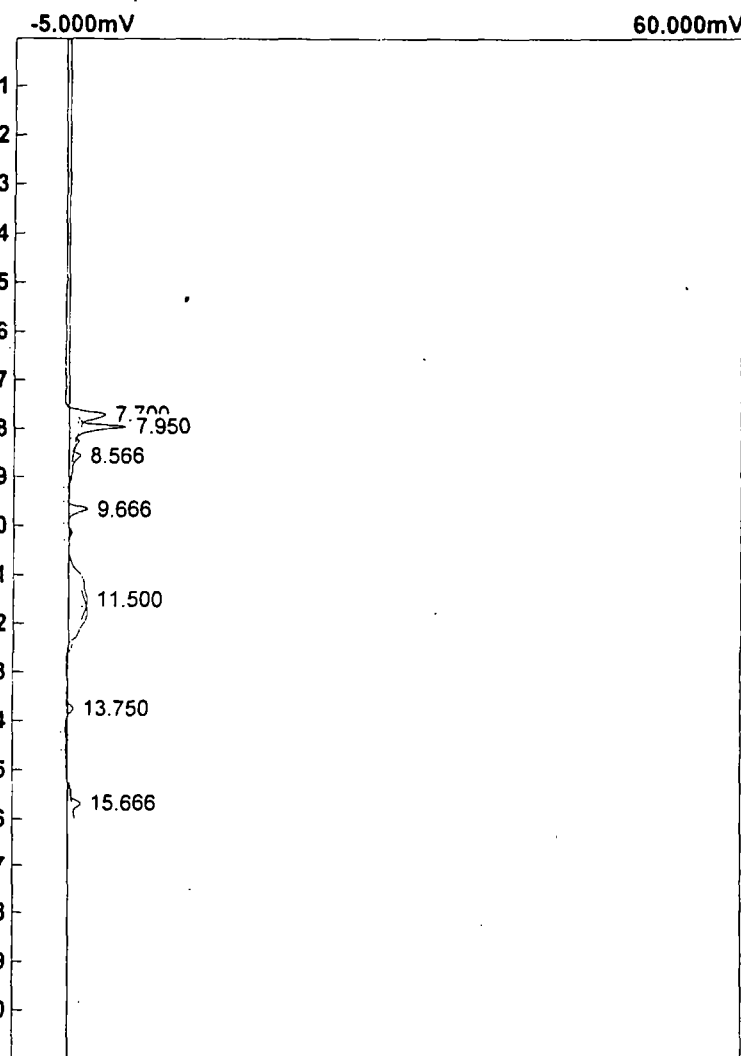
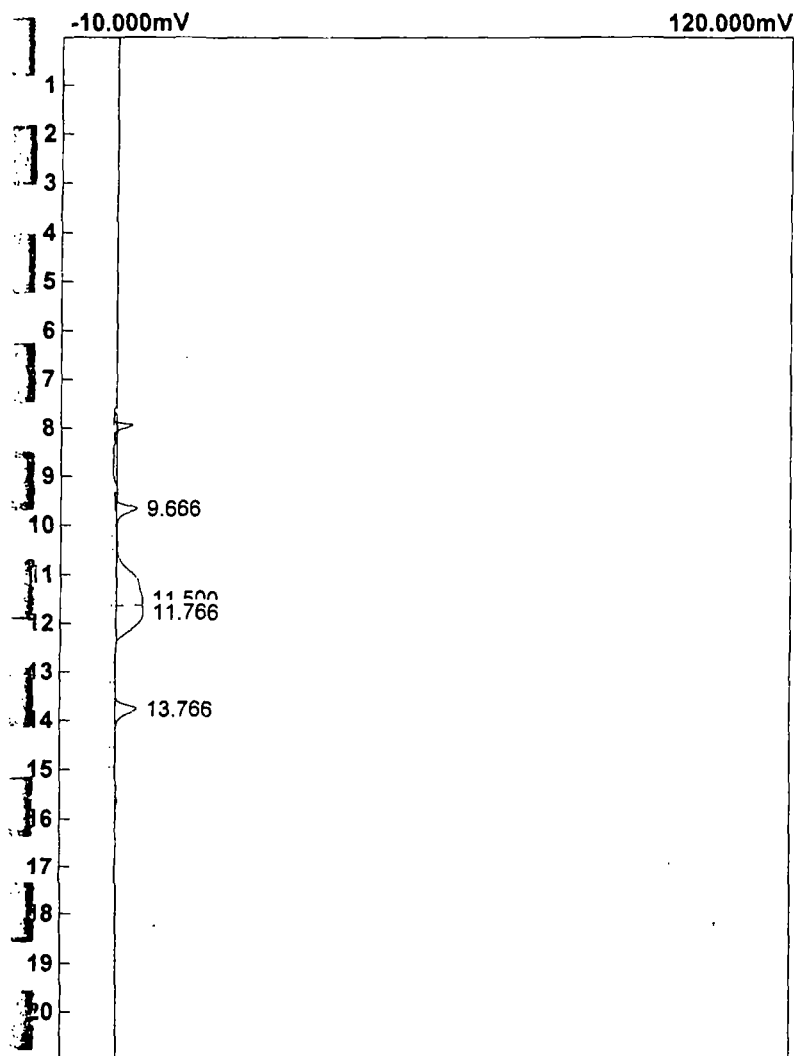
Description: FID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200FID81.CHR ()

Sample: GP-16 @ 70'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
PCE	13.766	54.894	2.7583	ppb
		54.894	2.7583	

Component	Retention	Area	External	Units
PCE	13.750	7.583	2.77	ppb
		7.583	2.77	

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 15:15:24

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: Bhate1200PID82.CHR ()

Sample: GP-17@ 50'

Operator: Matt Richards

Lab name: Geo Lab  
Client: F te

Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 15:15:24

Method: Purge & Trap

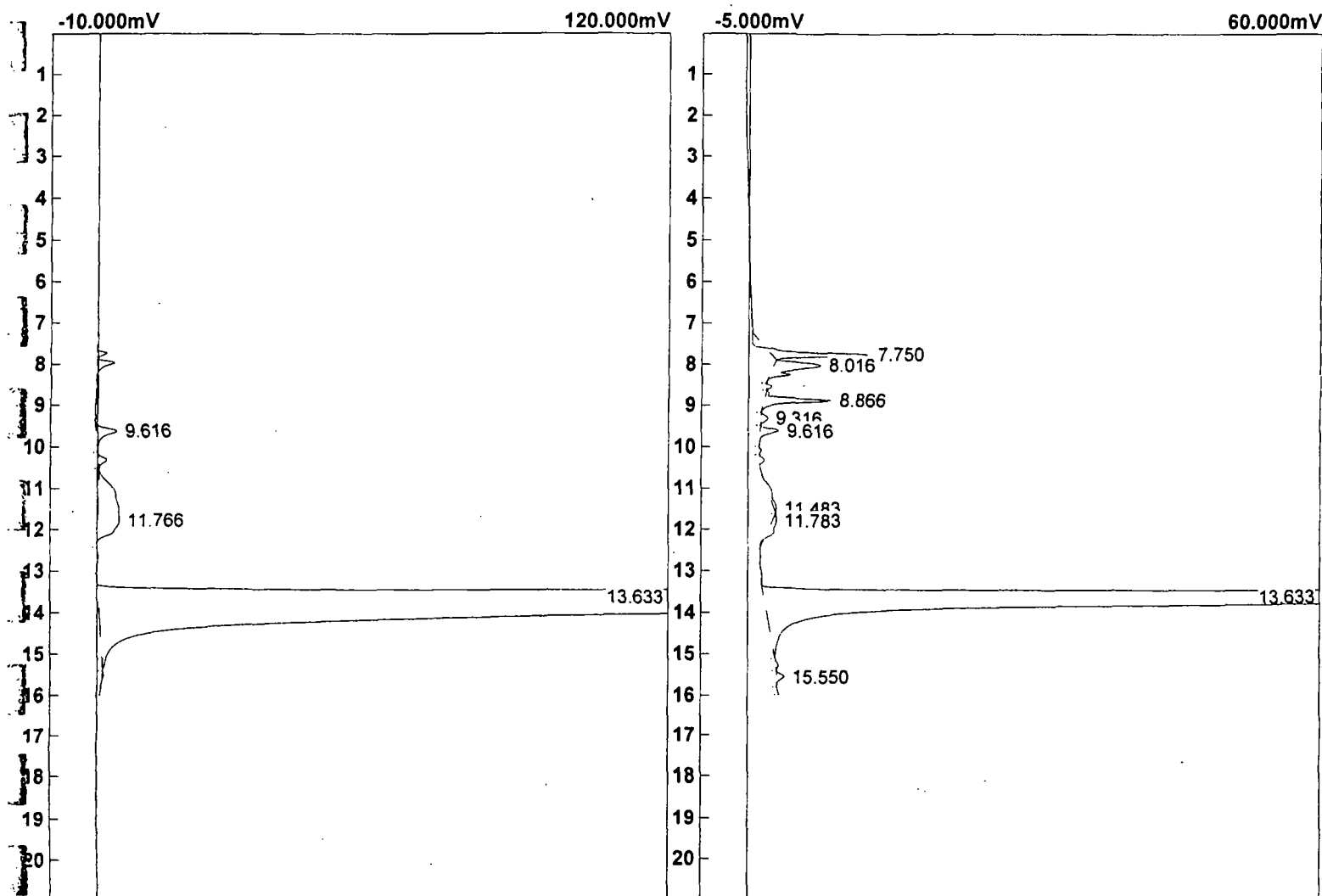
Description: FID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: Bhate1200FID82.CHR ()

Sample: GP-17 @ 50'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
PCE	13.633	19391.885	974.3924	ppb
		19391.885	974.3924	

Component	Retention	Area	External	Units
PCE	13.633	6527.334	2409.70	ppb
		6527.334	2409.70	

Lab name: Geo La'  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 19:25:05

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200PID87.CHR ()

Sample: GP-17 @ 60'

Operator: Matt Richards

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 19:25:05

Method: Purge & Trap

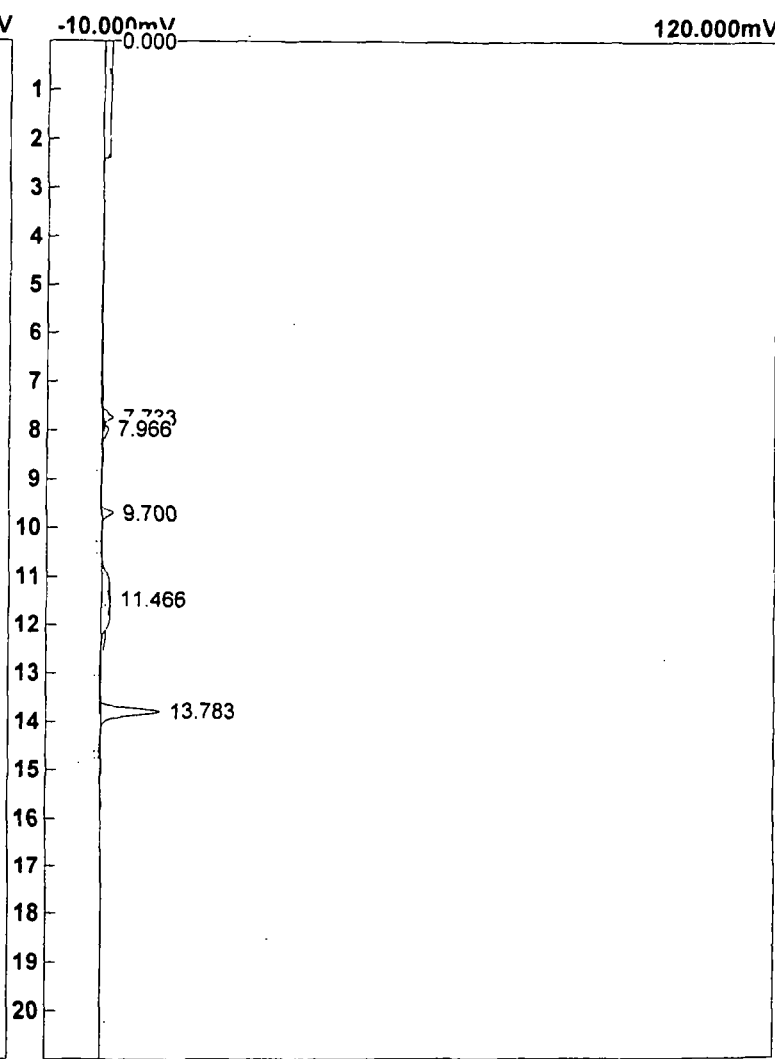
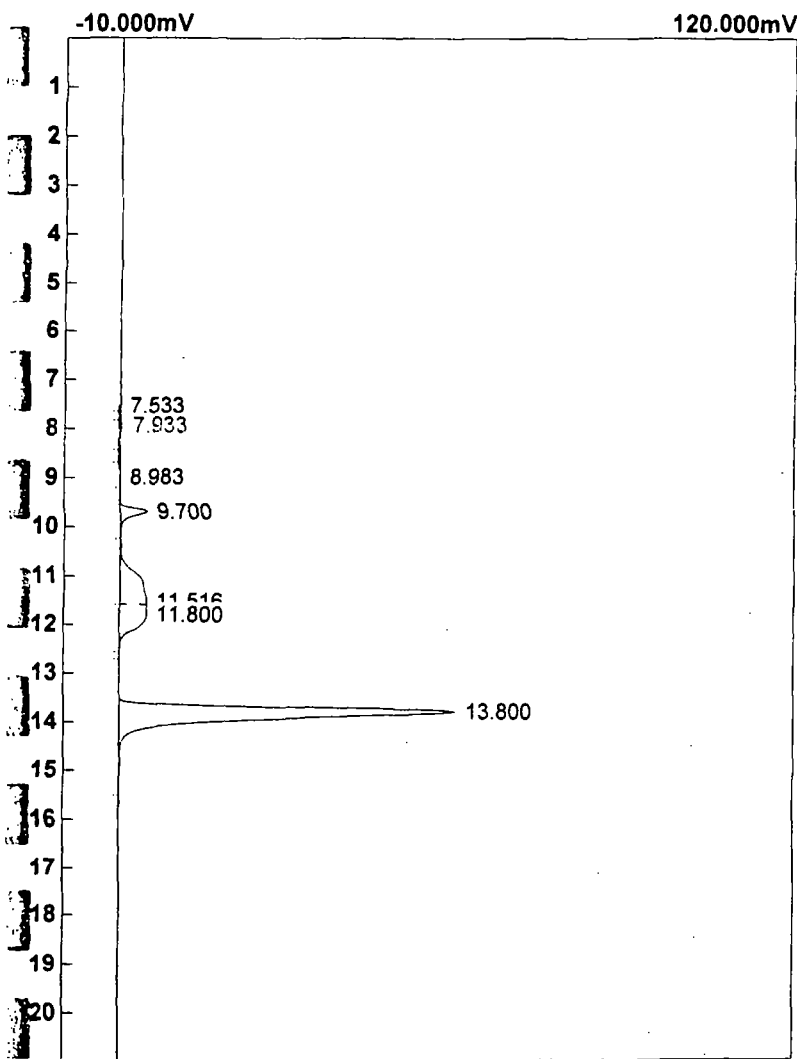
Description: FID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200FID87.CHR ()

Sample: GP-17 @ 60'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
PCE	13.800	943.618	948.2876	ppb
		943.618	948.2876	

Component	Retention	Area	External	Units
PCE	13.783	123.572	912.92	ppb
		123.572	912.92	

Lab name: Geo Lab  
Client: Bhate  
Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 20:02:54

Method: Purge & Trap

Description: PID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200PID88.CHR ()

Sample: GP-18 @ 50'

Operator: Matt Richards

Lab name: Geo Lab  
Client: B' 'e  
Client ID: Northingto

Holding time:

Analysis date: 12/15/2000 20:02:54

Method: Purge & Trap

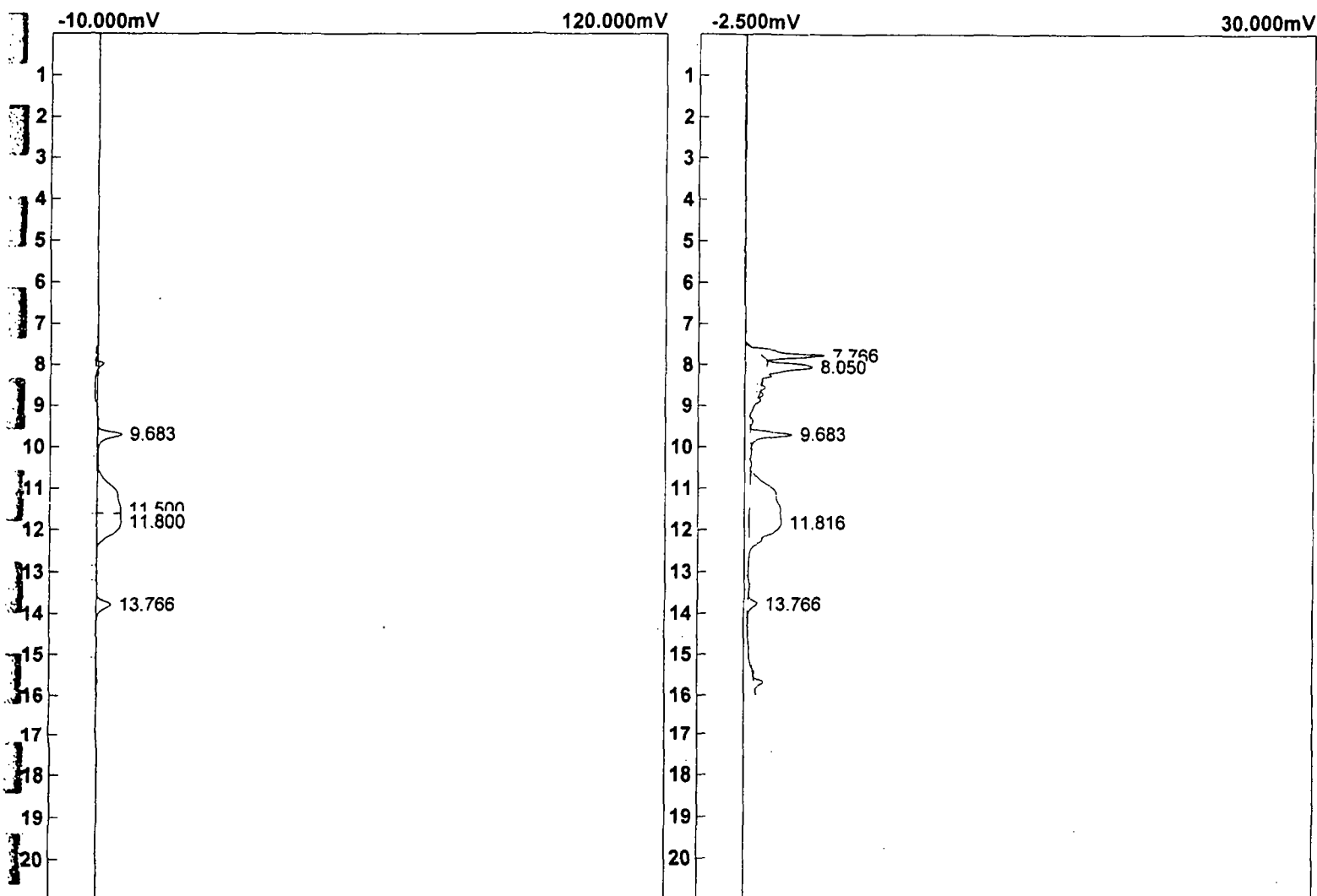
Description: FID Detector

Control filename: C:\PEAKW95\bhate1200.con

Data file: C:\PEAKW95\Bhate1200FID88.CHR ()

Sample: GP-18 @ 50'

Operator: Matt Richards



Component	Retention	Area	Internal	Units
-----------	-----------	------	----------	-------

PCE	13.766	42.948	2.1580	ppb
		42.948	2.1580	

Component	Retention	Area	External	Units
-----------	-----------	------	----------	-------

PCE	13.766	5.992	2.21	ppb
		5.992	2.21	

# Certificate of Analysis

DESCRIPTION: Tetrachloroethylene

CATALOG NO.: 48609

MFG DATE: Apr-1999

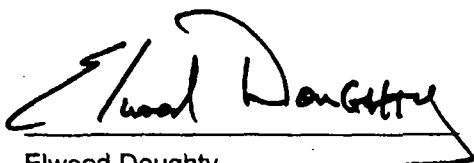
LOT NO.: LA-82381

EXPIRATION DATE: Apr-2002

SOLVENT: METHANOL

ANALYTE	CAS NUMBER	PERCENT PURITY(1)	WEIGHT(2) CONCENTRATION	ANALYTICAL(3)	STD DEV	SUPELCO LOT NO
TETRACHLOROETHENE	127-18-4	99.0	199.8	198.0	+/- 0.99	LA42748

- (1) Determined by capillary GC-FID, unless otherwise noted.
- (2) NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is ug/ml +/- 0.5%, based upon balance and Class A volumetric glassware. Weights are corrected for analytes less than 98% pure.
- (3) Determined by chromatographic analysis against an independently prepared reference lot. Mean of replicate injections. Analytical values are within +/- 10% of weight conc.; +/- 15% for gases.

  
Elwood Doughty  
Quality Control Supervisor

Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

**SUPELCO**

Supelco Park • Bellefonte, PA  
16823-0048 USA • Phone (814) 359-3441

# GROUNDWATER

GP-19 TO GP-22

1/24/01

## ANALYTICAL REPORT

### RECEIVED

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

MAR 15 2001

BHATE ENVIRONMENTAL

Lab Number: 01-A10980

Sample ID: GP-19 48

Sample Type: Ground water

Site ID:

Project: 3970097

Project Name: MCFARLAND REAL ESTATE

Sampler: JEFF KOGUT

Date Collected: 1/24/01

Time Collected:

Date Received: 1/27/01

Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	1/28/01	10:01	G.Norton	8260B	1413
Benzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Bromobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Bromochloromethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Bromoform	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Bromomethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
2-Butanone	ND	ug/l	10.0	10.0	1	1/28/01	10:01	G.Norton	8260B	1413
n-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
t-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Carbon disulfide	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Chlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Chloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Chloroform	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Chloromethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	1/28/01	10:01	G.Norton	8260B	1413
Dibromochloromethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Dibromomethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10980

Sample ID: GP-19 48

Project: 3970097

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Ethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
2-Hexanone	ND	ug/l	10.0	10.0	1	1/28/01	10:01	G.Norton	8260B	1413
Isopropylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	1/28/01	10:01	G.Norton	8260B	1413
Methylene chloride	ND	ug/l	5.0	5.0	1	1/28/01	10:01	G.Norton	8260B	1413
Naphthalene	ND	ug/l	0.2	0.2	1	1/28/01	10:01	G.Norton	8260B	1413
n-Propylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Styrene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Tetrachloroethene	362	ug/l	20.0	2.0	10	1/29/01	11:51	G.Norton	8260B	2807
Toluene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Trichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Vinyl chloride	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Xylenes, Total	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Bromodichloromethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	1/28/01	10:01	G.Norton	8260B	1413

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10980  
 Sample ID: GP-19 48  
 Project: 3970097  
 Page 3

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
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Sample ID changed per client request. 3/14/01

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
-----	-----	-----
VOA Surr, 1,2-DCA, d4	118.	71. - 136.
VOA Surr, Toluene d8	104.	69. - 129.
VOA Surr, 4-BFB	108.	65. - 122.
VOA Surr, DBPM	119.	61. - 139.

# = Recovery outside Laboratory historical limits.

These results relate only to the items tested.  
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 permission of the laboratory.

Report Approved By: *Paul E. Lane, Jr.*

Report Date: 1/30/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 3970097  
Project Name: MCFARLAND REAL ESTATE  
Sampler: JEFF KOGUT

Lab Number: 01-A10981  
Sample ID: GP-20 48  
Sample Type: Ground water  
Site ID:

Date Collected: 1/24/01  
Time Collected:  
Date Received: 1/27/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	1/28/01	10:37	G.Norton	8260B	1413
Benzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Bromobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Bromochloromethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Bromoform	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Bromomethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
2-Butanone	ND	ug/l	10.0	10.0	1	1/28/01	10:37	G.Norton	8260B	1413
n-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
t-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Carbon disulfide	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Chlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Chloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Chloroform	72.0	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Chloromethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	1/28/01	10:37	G.Norton	8260B	1413
Dibromochloromethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Dibromomethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10981  
Sample ID: GP-20 48  
Project: 3970097  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Ethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
2-Hexanone	ND	ug/l	10.0	10.0	1	1/28/01	10:37	G.Norton	8260B	1413
Isopropylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	1/28/01	10:37	G.Norton	8260B	1413
Methylene chloride	ND	ug/l	5.0	5.0	1	1/28/01	10:37	G.Norton	8260B	1413
Naphthalene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
n-Propylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Styrene	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/28/01	10:37	G.Norton	8260B	1413
Tetrachloroethene	12.9	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
Toluene	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
Trichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
Vinyl chloride	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
Xylenes, Total	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
Bromodichloromethane	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	1/28/01	22:37	G.Norton	8260B	1413

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10981  
 Sample ID: GP-20 48  
 Project: 3970097  
 Page 3

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
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Sample ID changed per client request. 3/14/01

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	111.	71. - 136.
VOA Surr, Toluene d8	103.	69. - 129.
VOA Surr, 4-BFB	111.	65. - 122.
VOA Surr, DBFM	121.	61. - 139.

# = Recovery outside Laboratory historical limits.

These results relate only to the items tested.  
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 permission of the laboratory.

Report Approved By: *Paul E. Lane, Jr.*

Report Date: 1/30/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 3970097  
Project Name: MCFARLAND REAL ESTATE  
Sampler: JEFF KOGUT

Lab Number: 01-A10982  
Sample ID: GP-21 24  
Sample Type: Ground water  
Site ID:

Date Collected: 1/25/01  
Time Collected:  
Date Received: 1/27/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	10.0	10.0	1	1/28/01	23:13	G.Norton	8260B	1544
Benzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Bromobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Bromochloromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Bromoform	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Bromomethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
2-Butanone	ND	ug/l	10.0	10.0	1	1/28/01	23:13	G.Norton	8260B	1544
n-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
t-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Carbon disulfide	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Chlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Chloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Chloroform	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Chloromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	1/28/01	23:13	G.Norton	8260B	1544
Dibromochloromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Dibromomethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10982

Sample ID: GP-21 24

Project: 3970097

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Ethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
2-Hexanone	ND	ug/l	10.0	10.0	1	1/28/01	23:13	G.Norton	8260B	1544
Isopropylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	1/28/01	23:13	G.Norton	8260B	1544
Methylene chloride	ND	ug/l	5.0	5.0	1	1/28/01	23:13	G.Norton	8260B	1544
Naphthalene	ND	ug/l	5.0	5.0	1	1/28/01	23:13	G.Norton	8260B	1544
n-Propylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Styrene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Tetrachloroethene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Toluene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Trichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Vinyl chloride	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Xylenes, Total	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Bromodichloromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:13	G.Norton	8260B	1544

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10982  
 Sample ID: GP-21 24  
 Project: 3970097  
 Page 3

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
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Sample ID changed per client request. 3/14/01

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	110.	71. - 136.
VOA Surr, Toluene d8	105.	69. - 129.
VOA Surr, 4-BFB	109.	65. - 122.
VOA Surr, DBPM	118.	61. - 139.

# = Recovery outside Laboratory historical limits.

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 permission of the laboratory.

Report Approved By: *Paul E. Lane, Jr.*

Report Date: 1/30/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 3970097  
Project Name: MCFARLAND REAL ESTATE  
Sampler: JEFF KOGUT

Lab Number: 01-A10983  
Sample ID: GP-21 44  
Sample Type: Ground water  
Site ID:

Date Collected: 1/25/01  
Time Collected:  
Date Received: 1/27/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	10.0	10.0	1	1/28/01	23:49	G.Norton	8260B	1544
Benzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Bromobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Bromochloromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Bromoform	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Bromomethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
2-Butanone	ND	ug/l	10.0	10.0	1	1/28/01	23:49	G.Norton	8260B	1544
n-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
t-Butylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Carbon disulfide	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Chlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Chloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Chloroform	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Chloromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	1/28/01	23:49	G.Norton	8260B	1544
Dibromochloromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Dibromomethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10983

Sample ID: GP-21 44

Project: 3970097

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Ethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
2-Hexanone	ND	ug/l	10.0	10.0	1	1/28/01	23:49	G.Norton	8260B	1544
Isopropylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	1/28/01	23:49	G.Norton	8260B	1544
Methylene chloride	ND	ug/l	5.0	5.0	1	1/28/01	23:49	G.Norton	8260B	1544
Naphthalene	ND	ug/l	5.0	5.0	1	1/28/01	23:49	G.Norton	8260B	1544
n-Propylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Styrene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Tetrachloroethene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Toluene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Trichloroethene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Vinyl chloride	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Xylenes, Total	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Bromodichloromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	1/28/01	23:49	G.Norton	8260B	1544

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10983  
 Sample ID: GP-21 44  
 Project: 3970097  
 Page 3

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
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Sample ID changed per client request. 3/14/01

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	112.	71. - 136.
VOA Surr, Toluene d8	104.	69. - 129.
VOA Surr, 4-BPB	107.	65. - 122.
VOA Surr, DBPM	117.	61. - 139.

# = Recovery outside Laboratory historical limits.

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 permission of the laboratory.

Report Approved By: *Paul E. Lane, Jr.*

Report Date: 1/30/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.



## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A10984  
Sample ID: GP-22 24  
Sample Type: Ground water  
Site ID:

Project: 3970097  
Project Name: MCFARLAND REAL ESTATE  
Sampler: JEFF KOGUT

Date Collected: 1/25/01  
Time Collected:  
Date Received: 1/27/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	10.0	10.0	1	1/29/01	0:25	G.Norton	8260B	1544
Benzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Bromobenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Bromochloromethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Bromoform	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Bromomethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
2-Butanone	ND	ug/l	10.0	10.0	1	1/29/01	0:25	G.Norton	8260B	1544
n-Butylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
t-Butylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Carbon disulfide	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Chlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Chloroethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Chloroform	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Chloromethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	1/29/01	0:25	G.Norton	8260B	1544
Dibromochloromethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Dibromomethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10984  
Sample ID: GP-22 24  
Project: 3970097  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Ethylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
2-Hexanone	ND	ug/l	10.0	10.0	1	1/29/01	0:25	G.Norton	8260B	1544
Isopropylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	1/29/01	0:25	G.Norton	8260B	1544
Methylene chloride	ND	ug/l	5.0	5.0	1	1/29/01	0:25	G.Norton	8260B	1544
Naphthalene	ND	ug/l	5.0	5.0	1	1/29/01	0:25	G.Norton	8260B	1544
n-Propylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Styrene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Tetrachloroethene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Toluene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Trichloroethene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Vinyl chloride	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Xylenes, Total	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Bromodichloromethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	1/29/01	0:25	G.Norton	8260B	1544

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10984  
 Sample ID: GP-22 24  
 Project: 3970097  
 Page 3

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Sample ID changed per client request. 3/14/01

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
-----	-----	-----
VOA Surr, 1,2-DCA, d4	109.	71. - 136.
VOA Surr, Toluene d8	107.	69. - 129.
VOA Surr, 4-BFB	107.	65. - 122.
VOA Surr, DBFM	116.	61. - 139.
# = Recovery outside Laboratory historical limits.		

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 permission of the laboratory.

Report Approved By: *Paul E. Lane, Jr.*

Report Date: 1/30/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A10985  
Sample ID: GP-22 40  
Sample Type: Ground water  
Site ID:

Project: 3970097  
Project Name: MCFARLAND REAL ESTATE  
Sampler: JEFF KOGUT

Date Collected: 1/25/01  
Time Collected:  
Date Received: 1/27/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	10.0	10.0	1	1/29/01	1:01	G.Norton	8260B	1544
Benzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Bromobenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Bromochloromethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Bromoform	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Bromomethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
2-Butanone	ND	ug/l	10.0	10.0	1	1/29/01	1:01	G.Norton	8260B	1544
n-Butylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
t-Butylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Carbon disulfide	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Chlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Chloroethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Chloroform	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Chloromethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	1/29/01	1:01	G.Norton	8260B	1544
Dibromochloromethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Dibromomethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10985

Sample ID: GP-22 40

Project: 3970097

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Ethylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
2-Hexanone	ND	ug/l	10.0	10.0	1	1/29/01	1:01	G.Norton	8260B	1544
Isopropylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	1/29/01	1:01	G.Norton	8260B	1544
Methylene chloride	ND	ug/l	5.0	5.0	1	1/29/01	1:01	G.Norton	8260B	1544
Naphthalene	ND	ug/l	5.0	5.0	1	1/29/01	1:01	G.Norton	8260B	1544
n-Propylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Styrene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Tetrachloroethene	4.9	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Toluene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Trichloroethene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Vinyl chloride	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Xylenes, Total	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Bromodichloromethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	1/29/01	1:01	G.Norton	8260B	1544

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A10985  
 Sample ID: GP-22 40  
 Project: 3970097  
 Page 3

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
---------	--------	-------	--------------	------------	------------	---------------	---------------	---------	--------	-------

Sample ID changed per client request. 3/14/01

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	111.	71. - 136.
VOA Surr, Toluene d8	106.	69. - 129.
VOA Surr, 4-BFB	108.	65. - 122.
VOA Surr, DBFM	119.	61. - 139.

# = Recovery outside Laboratory historical limits.

These results relate only to the items tested.  
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Report Approved By: Paul E. Lane, Jr.

Report Date: 1/30/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

**PROJECT QUALITY CONTROL DATA**  
**Project Number: 3970097**

Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>**VOA PARAMETERS**</b>								
Benzene	mg/l	< 0.00200	0.04980	0.05000	100	53. - 134.	1413	blank
Chlorobenzene	mg/l	< 0.0020	0.0531	0.0500	106	62. - 131.	1413	blank
1,1-Dichloroethene	mg/l	< 0.00200	0.05460	0.05000	109	42. - 149.	1413	blank
Toluene	mg/l	< 0.00200	0.04950	0.05000	99	54. - 135.	1413	blank
Trichloroethene	mg/l	< 0.00200	0.05030	0.05000	101	51. - 139.	1413	blank

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
-----	-----	-----	-----	-----	-----	-----
<b>**VOA PARAMETERS**</b>						
Benzene	mg/l	0.04980	0.05430	8.65	25.	1413
Chlorobenzene	mg/l	0.0531	0.0555	4.42	25.	1413
1,1-Dichloroethene	mg/l	0.05460	0.06060	10.42	36.	1413
Toluene	mg/l	0.04950	0.05310	7.02	29.	1413
Trichloroethene	mg/l	0.05030	0.05510	9.11	30.	1413

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
-----	-----	-----	-----	-----	-----	-----
<b>**VOA PARAMETERS**</b>						
Acetone	mg/l	0.2500	0.3390	136	25 - 136	1413
Benzene	mg/l	0.05000	0.05220	104	73 - 113	1413
Bromobenzene	mg/l	0.0500	0.0488	98	80 - 127	1413
Bromochloromethane	mg/l	0.0500	0.0530	106	68 - 122	1413
Bromoform	mg/l	0.0500	0.0428	86	66 - 124	1413
Bromomethane	mg/l	0.0500	0.0623	125	54 - 141	1413

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
**Project Number: 3970097**

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
2-Butanone	mg/l	0.2500	0.2770	111	48 - 138	1413
n-Butylbenzene	mg/l	0.0500	0.0504	101	66 - 122	1413
sec-Butylbenzene	mg/l	0.0500	0.0519	104	73 - 127	1413
t-Butylbenzene	mg/l	0.0500	0.0517	103	74 - 133	1413
Carbon disulfide	mg/l	0.0500	0.0545	109	68 - 120	1413
Carbon tetrachloride	mg/l	0.05000	0.04600	92	70 - 122	1413
Chlorobenzene	mg/l	0.0500	0.0540	108	82 - 112	1413
Chloroethane	mg/l	0.0500	0.0513	103	67 - 126	1413
Chloroform	mg/l	0.0500	0.0519	104	69 - 120	1413
Chloromethane	mg/l	0.0500	0.0467	93	58 - 140	1413
2-Chlorotoluene	mg/l	0.0500	0.0505	101	78 - 126	1413
4-Chlorotoluene	mg/l	0.0500	0.0507	101	77 - 127	1413
1,2-Dibromo-3-chloropropane	mg/l	0.0500	0.0439	88	57 - 151	1413
Dibromochloromethane	mg/l	0.0500	0.0500	100	77 - 127	1413
1,2-Dibromoethane	mg/l	0.0500	0.0565	113	78 - 122	1413
Dibromomethane	mg/l	0.0500	0.0577	115	70 - 118	1413
1,2-Dichlorobenzene	mg/l	0.0500	0.0504	101	74 - 128	1413
1,3-Dichlorobenzene	mg/l	0.0500	0.0497	99	64 - 141	1413
1,4-Dichlorobenzene	mg/l	0.0500	0.0510	102	70 - 127	1413
Dichlorodifluoromethane	mg/l	0.0500	0.0545	109	45 - 147	1413
1,1-Dichloroethane	mg/l	0.05000	0.05210	104	48 - 138	1413
1,2-Dichloroethane	mg/l	0.0500	0.0568	114	65 - 125	1413
1,1-Dichloroethene	mg/l	0.05000	0.05710	114	70 - 121	1413
cis-1,2-Dichloroethene	mg/l	0.0500	0.0540	108	70 - 120	1413
trans-1,2-Dichloroethene	mg/l	0.0500	0.0529	106	71 - 119	1413
1,2-Dichloropropane	mg/l	0.0500	0.0541	108	72 - 117	1413
1,3-Dichloropropane	mg/l	0.0500	0.0552	110	67 - 127	1413
2,2-Dichloropropane	mg/l	0.0500	0.0444	89	39 - 124	1413
1,1-Dichloropropene	mg/l	0.0500	0.0554	111	68 - 123	1413
cis-1,3-Dichloropropene	mg/l	0.0500	0.0460	92	62 - 122	1413
trans-1,3-Dichloropropene	mg/l	0.0500	0.0490	98	55 - 125	1413
Ethylbenzene	mg/l	0.05000	0.05450	109	78 - 119	1413
Hexachlorobutadiene	mg/l	0.0500	0.0486	97	55 - 136	1413
2-Hexanone	mg/l	0.2500	0.2700	108	55 - 136	1413

Project QC continued . . .

## PROJECT QUALITY CONTROL DATA

Project Number: 3970097

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Isopropylbenzene	mg/l	0.0500	0.0526	105	77 - 125	1413
4-Isopropyltoluene	mg/l	0.0500	0.0522	104	69 - 128	1413
4-Methyl-2-pentanone	mg/l	0.2500	0.2670	107	59 - 134	1413
Methylene chloride	mg/l	0.0500	0.0512	102	63 - 125	1413
Naphthalene	mg/l	0.0500	0.0392	78	62 - 149	1413
n-Propylbenzene	mg/l	0.0500	0.0519	104	78 - 126	1413
Styrene	mg/l	0.0500	0.0542	108	82 - 122	1413
1,1,1,2-Tetrachloroethane	mg/l	0.0500	0.0542	108	83 - 121	1413
1,1,2,2-Tetrachloroethane	mg/l	0.0500	0.0618	124 #	74 - 123	1413
Tetrachloroethene	mg/l	0.05000	0.05490	110	79 - 111	1413
Toluene	mg/l	0.05000	0.05140	103	70 - 119	1413
1,2,3-Trichlorobenzene	mg/l	0.0500	0.0294	59 #	62 - 147	1413
1,2,4-Trichlorobenzene	mg/l	0.0500	0.0451	90	66 - 132	1413
1,1,1-Trichloroethane	mg/l	0.05000	0.05500	110	71 - 120	1413
1,1,2-Trichloroethane	mg/l	0.0500	0.0561	112	70 - 119	1413
Trichloroethene	mg/l	0.05000	0.05320	106	70 - 121	1413
1,2,3-Trichloropropane	mg/l	0.0500	0.0572	114	68 - 139	1413
1,2,4-Trimethylbenzene	mg/l	0.0500	0.0511	102	70 - 136	1413
1,3,5-Trimethylbenzene	mg/l	0.0500	0.0517	103	73 - 133	1413
Vinyl chloride	mg/l	0.0500	0.0537	107	61 - 143	1413
Xylenes, Total	mg/l	0.1500	0.1635	109	62 - 137	1413
Bromodichloromethane	mg/l	0.0500	0.0503	101	71 - 117	1413
Trichlorofluoromethane	mg/l	0.0500	0.0564	113	65 - 124	1413

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
**VOA PARAMETERS**					
Acetone	< 0.0500	mg/l	1413	1/28/01	17:50
Acetone	< 0.0100	mg/l	1544	1/28/01	17:50
Benzene	< 0.00200	mg/l	1413	1/28/01	17:50
Benzene	< 0.00200	mg/l	1544	1/28/01	17:50

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
**Project Number: 3970097**

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Bromobenzene	< 0.0020	mg/l	1413	1/28/01	17:50
Bromobenzene	< 0.0020	mg/l	1544	1/28/01	17:50
Bromochloromethane	< 0.0020	mg/l	1413	1/28/01	17:50
Bromochloromethane	< 0.0020	mg/l	1544	1/28/01	17:50
Bromoform	< 0.0020	mg/l	1413	1/28/01	17:50
Bromoform	< 0.0020	mg/l	1544	1/28/01	17:50
Bromomethane	< 0.0020	mg/l	1413	1/28/01	17:50
Bromomethane	< 0.0020	mg/l	1544	1/28/01	17:50
2-Butanone	< 0.0500	mg/l	1413	1/28/01	17:50
2-Butanone	< 0.0100	mg/l	1544	1/28/01	17:50
n-Butylbenzene	< 0.0020	mg/l	1413	1/28/01	17:50
n-Butylbenzene	< 0.0020	mg/l	1544	1/28/01	17:50
sec-Butylbenzene	< 0.0020	mg/l	1413	1/28/01	17:50
sec-Butylbenzene	< 0.0020	mg/l	1544	1/28/01	17:50
t-Butylbenzene	< 0.0020	mg/l	1413	1/28/01	17:50
t-Butylbenzene	< 0.0020	mg/l	1544	1/28/01	17:50
Carbon disulfide	< 0.0020	mg/l	1413	1/28/01	17:50
Carbon disulfide	< 0.0020	mg/l	1544	1/28/01	17:50
Carbon tetrachloride	< 0.00200	mg/l	1413	1/28/01	17:50
Carbon tetrachloride	< 0.00200	mg/l	1544	1/28/01	17:50
Chlorobenzene	< 0.0020	mg/l	1413	1/28/01	17:50
Chlorobenzene	< 0.0020	mg/l	1544	1/28/01	17:50
Chloroethane	< 0.0020	mg/l	1413	1/28/01	17:50
Chloroethane	< 0.0020	mg/l	1544	1/28/01	17:50
Chloroform	< 0.0020	mg/l	1413	1/28/01	17:50
Chloroform	< 0.0020	mg/l	1544	1/28/01	17:50
Chloromethane	< 0.0020	mg/l	1413	1/28/01	17:50
Chloromethane	< 0.0020	mg/l	1544	1/28/01	17:50
2-Chlorotoluene	< 0.0020	mg/l	1413	1/28/01	17:50
2-Chlorotoluene	< 0.0020	mg/l	1544	1/28/01	17:50
4-Chlorotoluene	< 0.0020	mg/l	1413	1/28/01	17:50
4-Chlorotoluene	< 0.0020	mg/l	1544	1/28/01	17:50
1,2-Dibromo-3-chloropropane	< 0.0100	mg/l	1413	1/28/01	17:50
1,2-Dibromo-3-chloropropane	< 0.0100	mg/l	1544	1/28/01	17:50

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
**Project Number: 3970097**

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Dibromochloromethane	< 0.0020	mg/l	1413	1/28/01	17:50
Dibromochloromethane	< 0.0020	mg/l	1544	1/28/01	17:50
1,2-Dibromoethane	< 0.0020	mg/l	1413	1/28/01	17:50
1,2-Dibromoethane	< 0.0020	mg/l	1544	1/28/01	17:50
Dibromomethane	< 0.0020	mg/l	1413	1/28/01	17:50
Dibromomethane	< 0.0020	mg/l	1544	1/28/01	17:50
1,2-Dichlorobenzene	< 0.0020	mg/l	1413	1/28/01	17:50
1,2-Dichlorobenzene	< 0.0020	mg/l	1544	1/28/01	17:50
1,3-Dichlorobenzene	< 0.0020	mg/l	1413	1/28/01	17:50
1,3-Dichlorobenzene	< 0.0020	mg/l	1544	1/28/01	17:50
1,4-Dichlorobenzene	< 0.0020	mg/l	1413	1/28/01	17:50
1,4-Dichlorobenzene	< 0.0020	mg/l	1544	1/28/01	17:50
Dichlorodifluoromethane	< 0.0020	mg/l	1413	1/28/01	17:50
Dichlorodifluoromethane	< 0.0020	mg/l	1544	1/28/01	17:50
1,1-Dichloroethane	< 0.00200	mg/l	1413	1/28/01	17:50
1,1-Dichloroethane	< 0.00200	mg/l	1544	1/28/01	17:50
1,2-Dichloroethane	< 0.0020	mg/l	1413	1/28/01	17:50
1,2-Dichloroethane	< 0.0020	mg/l	1544	1/28/01	17:50
1,1-Dichloroethene	< 0.00200	mg/l	1413	1/28/01	17:50
1,1-Dichloroethene	< 0.00200	mg/l	1544	1/28/01	17:50
cis-1,2-Dichloroethene	< 0.0020	mg/l	1413	1/28/01	17:50
cis-1,2-Dichloroethene	< 0.0020	mg/l	1544	1/28/01	17:50
trans-1,2-Dichloroethene	< 0.0020	mg/l	1413	1/28/01	17:50
trans-1,2-Dichloroethene	< 0.0020	mg/l	1544	1/28/01	17:50
1,2-Dichloropropane	< 0.0020	mg/l	1413	1/28/01	17:50
1,2-Dichloropropane	< 0.0020	mg/l	1544	1/28/01	17:50
1,3-Dichloropropane	< 0.0020	mg/l	1413	1/28/01	17:50
1,3-Dichloropropane	< 0.0020	mg/l	1544	1/28/01	17:50
2,2-Dichloropropane	< 0.0020	mg/l	1413	1/28/01	17:50
2,2-Dichloropropane	< 0.0020	mg/l	1544	1/28/01	17:50
1,1-Dichloropropene	< 0.0020	mg/l	1413	1/28/01	17:50
1,1-Dichloropropene	< 0.0020	mg/l	1544	1/28/01	17:50
cis-1,3-Dichloropropene	< 0.0020	mg/l	1413	1/28/01	17:50
cis-1,3-Dichloropropene	< 0.0020	mg/l	1544	1/28/01	17:50

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**  
**Project Number: 3970097**

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
trans-1,3-Dichloropropene	< 0.0020	mg/l	1413	1/28/01	17:50
trans-1,3-Dichloropropene	< 0.0020	mg/l	1544	1/28/01	17:50
Ethylbenzene	< 0.00200	mg/l	1413	1/28/01	17:50
Ethylbenzene	< 0.00200	mg/l	1544	1/28/01	17:50
Hexachlorobutadiene	< 0.0020	mg/l	1413	1/28/01	17:50
Hexachlorobutadiene	< 0.0020	mg/l	1544	1/28/01	17:50
2-Hexanone	< 0.0100	mg/l	1413	1/28/01	17:50
2-Hexanone	< 0.0100	mg/l	1544	1/28/01	17:50
Isopropylbenzene	< 0.0020	mg/l	1413	1/28/01	17:50
Isopropylbenzene	< 0.0020	mg/l	1544	1/28/01	17:50
4-Isopropyltoluene	< 0.0020	mg/l	1413	1/28/01	17:50
4-Isopropyltoluene	< 0.0020	mg/l	1544	1/28/01	17:50
4-Methyl-2-pentanone	< 0.0100	mg/l	1413	1/28/01	17:50
4-Methyl-2-pentanone	< 0.0100	mg/l	1544	1/28/01	17:50
Methylene chloride	< 0.0020	mg/l	1413	1/28/01	17:50
Methylene chloride	< 0.0020	mg/l	1544	1/28/01	17:50
Naphthalene	< 0.0050	mg/l	1413	1/28/01	17:50
Naphthalene	< 0.0050	mg/l	1544	1/28/01	17:50
n-Propylbenzene	< 0.0020	mg/l	1413	1/28/01	17:50
n-Propylbenzene	< 0.0020	mg/l	1544	1/28/01	17:50
Styrene	< 0.0020	mg/l	1413	1/28/01	17:50
Styrene	< 0.0020	mg/l	1544	1/28/01	17:50
1,1,1,2-Tetrachloroethane	< 0.0020	mg/l	1413	1/28/01	17:50
1,1,1,2-Tetrachloroethane	< 0.0020	mg/l	1544	1/28/01	17:50
1,1,2,2-Tetrachloroethane	< 0.0020	mg/l	1413	1/28/01	17:50
1,1,2,2-Tetrachloroethane	< 0.0020	mg/l	1544	1/28/01	17:50
Tetrachloroethene	< 0.00200	mg/l	1413	1/28/01	17:50
Tetrachloroethene	< 0.00200	mg/l	1544	1/28/01	17:50
Toluene	< 0.00200	mg/l	1413	1/28/01	17:50
Toluene	< 0.00200	mg/l	1544	1/28/01	17:50
1,2,3-Trichlorobenzene	< 0.0020	mg/l	1413	1/28/01	17:50
1,2,3-Trichlorobenzene	< 0.0020	mg/l	1544	1/28/01	17:50
1,2,4-Trichlorobenzene	< 0.0020	mg/l	1413	1/28/01	17:50
1,2,4-Trichlorobenzene	< 0.0020	mg/l	1544	1/28/01	17:50

Project QC continued . . .

## PROJECT QUALITY CONTROL DATA

Project Number: 3970097

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
1,1,1-Trichloroethane	< 0.00200	mg/l	1413	1/28/01	17:50
1,1,1-Trichloroethane	< 0.00200	mg/l	1544	1/28/01	17:50
1,1,2-Trichloroethane	< 0.0020	mg/l	1413	1/28/01	17:50
1,1,2-Trichloroethane	< 0.0020	mg/l	1544	1/28/01	17:50
Trichloroethene	< 0.00200	mg/l	1413	1/28/01	17:50
Trichloroethene	< 0.00200	mg/l	1544	1/28/01	17:50
1,2,3-Trichloropropane	< 0.0020	mg/l	1413	1/28/01	17:50
1,2,3-Trichloropropane	< 0.0020	mg/l	1544	1/28/01	17:50
1,2,4-Trimethylbenzene	< 0.0020	mg/l	1413	1/28/01	17:50
1,2,4-Trimethylbenzene	< 0.0020	mg/l	1544	1/28/01	17:50
1,3,5-Trimethylbenzene	< 0.0020	mg/l	1413	1/28/01	17:50
1,3,5-Trimethylbenzene	< 0.0020	mg/l	1544	1/28/01	17:50
Vinyl chloride	< 0.0020	mg/l	1413	1/28/01	17:50
Vinyl chloride	< 0.0020	mg/l	1544	1/28/01	17:50
Xylenes, Total	< 0.00200	mg/l	1413	1/28/01	17:50
Xylenes, Total	< 0.00200	mg/l	1544	1/28/01	17:50
Bromodichloromethane	< 0.0020	mg/l	1413	1/28/01	17:50
Bromodichloromethane	< 0.0020	mg/l	1544	1/28/01	17:50
Trichlorofluoromethane	< 0.0020	mg/l	1413	1/28/01	17:50
Trichlorofluoromethane	< 0.0020	mg/l	1544	1/28/01	17:50
VOA Surr, 1,2-DCA, d4	110.	# Rec	1413	1/28/01	17:50
VOA Surr, Toluene d8	106.	# Rec	1413	1/28/01	17:50
VOA Surr, 4-BPB	108.	# Rec	1413	1/28/01	17:50
VOA Surr, DBPM	118.	# Rec	1413	1/28/01	17:50

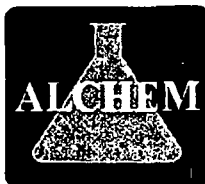
# = Value outside Laboratory historical QC limits.

End of Report for Project 224416

# GROUNDWATER

GP-23 TO GP-27

4/5/01



**ALCHEM OF ALABAMA, INC.**  
**Environmental Testing Laboratory**

1526 Pinson Street      325 Oak Leaf Circle  
Tarrant, AL 35217      Hoover, AL 35244

Invoice # **1254**

**Client:** Mr. Jeffrey Kogut  
Bhate Environmental, Inc.  
1608 13th Avenue South  
Birmingham, AL 35205

**Project Name:** McFarland Real Estate  
**Project Location:** Tuscaloosa, AL  
**Sample Matrix:** Water  
**Sampled By:** Jeffrey Kogut  
**Lab Analyst:** Mark R. Sutherland  
**Test Method:** "Test Methods for Evaluating Solid Waste," SW-846, Method 8260

**Report Date:** April 11, 2001  
**Project Number:** 9010095  
**P.O Number:**  
**Date Collected:** April 5, 2001  
**Analysis Date:** April 6-10, 2001

VOLATILE ORGANIC COMPOUNDS					
Lab I.D.:	5064	Detection	Lab I.D.:	5064	Detection
Field I.D.:	GP-23	Limit	Field I.D.:	GP-23	Limit
PARAMETERS	mg/L PPM	mg/L PPM	PARAMETERS	mg/L PPM	mg/L PPM
Benzene	BDL	0.005	1,3-Dichloropropane	BDL	0.005
Bromobenzene	BDL	0.005	2,2-Dichloropropane	BDL	0.005
Bromochloromethane	BDL	0.005	1,1-Dichloropropene	BDL	0.005
Bromodichloromethane	BDL	0.005	cis-1,3-Dichloropropene	BDL	0.005
Bromoform	BDL	0.005	trans-1,3-Dichloropropene	BDL	0.005
Bromomethane	BDL	0.005	Ethylbenzene	BDL	0.005
n-Butylbenzene	BDL	0.005	Hexachlorobutadiene	BDL	0.005
sec-Butylbenzene	BDL	0.005	Isopropylbenzene	BDL	0.005
tert-Butylbenzene	BDL	0.005	4-Isopropyltoluene	BDL	0.005
Carbon tetrachloride	BDL	0.005	Methylene Chloride	BDL	0.005
Chlorobenzene	BDL	0.005	Naphthalene	BDL	0.005
Chloroethane	BDL	0.005	n-Propylbenzene	BDL	0.005
Chloroform	BDL	0.005	Styrene	BDL	0.005
Chloromethane	BDL	0.005	1,1,1,2-Tetrachloroethane	BDL	0.005
2-Chlorotoluene	BDL	0.005	1,1,2,2-Tetrachloroethane	BDL	0.005
4-Chlorotoluene	BDL	0.005	Tetrachloroethylene	0.104	0.005
Dibromochloromethane	BDL	0.005	Toluene	BDL	0.005
1,2-Dibromo-3-chloropropane	BDL	0.005	1,2,3-Trichlorobenzene	BDL	0.005
1,2-Dibromoethane	BDL	0.005	1,2,4-Trichlorobenzene	BDL	0.005
Dibromomethane	BDL	0.005	1,1,1-Trichloroethane	BDL	0.005
Dichlorobenzenes (1,2 & 1,3 & 1,4)	BDL	0.005	1,1,2-Trichloroethane	BDL	0.005
Dichlorodifluoromethane	BDL	0.005	Trichloroethylene	BDL	0.005
1,1-Dichloroethane	BDL	0.005	Trichlorofluoromethane	BDL	0.005
1,2-Dichloroethane	BDL	0.005	1,2,3-Trichloropropane	BDL	0.005
1,1-Dichloroethene	BDL	0.005	1,2,4-Trimethylbenzene	BDL	0.005
cis-1,2-Dichloroethene	BDL	0.005	1,3,5-Trimethylbenzene	BDL	0.005
trans-1,2-Dichloroethene	BDL	0.005	Vinyl Chloride	BDL	0.005
1,2-Dichloropropane	BDL	0.005	Xylenes (m, p, o)	BDL	0.005

BDL-Below Detection Limit

mg/L - Milligrams per Liter or Parts Per Million

EPA/ADEM Lab Certification ID #41230

  
Mark R. Sutherland, Director



**ALCHEM OF ALABAMA, INC.**  
**Environmental Testing Laboratory**

1526 Pinson Street      325 Oak Leaf Circle  
Tarrant, AL 35217      Hoover, AL 35244

Invoice # **1254**

**Client:** Mr. Jeffrey Kogut  
Bhate Environmental, Inc.  
1608 13th Avenue South  
Birmingham, AL 35205

**Project Name:** McFarland Real Estate  
**Project Location:** Tuscaloosa, AL  
**Sample Matrix:** Water

**Sampled By:** Jeffrey Kogut  
**Lab Analyst:** Mark R. Sutherland

**Test Method:** "Test Methods for Evaluating Solid Waste," SW-846, Method 8260

**Report Date:** April 11, 2001  
**Project Number:** 9010095  
**P.O Number:**  
**Date Collected:** April 5, 2001  
**Analysis Date:** April 6-10, 2001

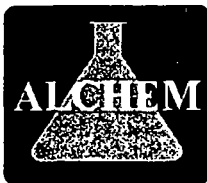
VOLATILE ORGANIC COMPOUNDS					
Lab I.D.:	5065	Detection	Lab I.D.:	5065	Detection
Field I.D.:	GP-24	Limit	Field I.D.:	GP-24	Limit
PARAMETERS	mg/L PPM	mg/L PPM	PARAMETERS	mg/L PPM	mg/L PPM
Benzene	BDL	0.005	1,3-Dichloropropane	BDL	0.005
Bromobenzene	BDL	0.005	2,2-Dichloropropane	BDL	0.005
Bromochloromethane	BDL	0.005	1,1-Dichloropropene	BDL	0.005
Bromodichloromethane	BDL	0.005	cis-1,3-Dichloropropene	BDL	0.005
Bromoform	BDL	0.005	trans-1,3-Dichloropropene	BDL	0.005
Bromomethane	BDL	0.005	Ethylbenzene	BDL	0.005
n-Butylbenzene	BDL	0.005	Hexachlorobutadiene	BDL	0.005
sec-Butylbenzene	BDL	0.005	Isopropylbenzene	BDL	0.005
tert-Butylbenzene	BDL	0.005	4-Isopropyltoluene	BDL	0.005
Carbon tetrachloride	BDL	0.005	Methylene Chloride	BDL	0.005
Chlorobenzene	BDL	0.005	Naphthalene	BDL	0.005
Chloroethane	BDL	0.005	n-Propylbenzene	BDL	0.005
Chloroform	BDL	0.005	Styrene	BDL	0.005
Chloromethane	BDL	0.005	1,1,1,2-Tetrachloroethane	BDL	0.005
2-Chlorotoluene	BDL	0.005	1,1,2,2-Tetrachloroethane	BDL	0.005
4-Chlorotoluene	BDL	0.005	Tetrachloroethylene	0.57	0.005
Dibromochloromethane	BDL	0.005	Toluene	BDL	0.005
1,2-Dibromo-3-chloropropane	BDL	0.005	1,2,3-Trichlorobenzene	BDL	0.005
1,2-Dibromoethane	BDL	0.005	1,2,4-Trichlorobenzene	BDL	0.005
Dibromomethane	BDL	0.005	1,1,1-Trichloroethane	BDL	0.005
Dichlorobenzenes (1,2 & 1,3 & 1,4)	BDL	0.005	1,1,2-Trichloroethane	BDL	0.005
Dichlorodifluoromethane	BDL	0.005	Trichloroethylene	BDL	0.005
1,1-Dichloroethane	BDL	0.005	Trichlorofluoromethane	BDL	0.005
1,2-Dichloroethane	BDL	0.005	1,2,3-Trichloropropane	BDL	0.005
1,1-Dichloroethene	BDL	0.005	1,2,4-Trimethylbenzene	BDL	0.005
cis-1,2-Dichloroethene	BDL	0.005	1,3,5-Trimethylbenzene	BDL	0.005
trans-1,2-Dichloroethene	BDL	0.005	Vinyl Chloride	BDL	0.005
1,2-Dichloropropane	BDL	0.005	Xylenes (m, p, o)	BDL	0.005

BDL-Below Detection Limit

mg/L - Milligrams per Liter or Parts Per Million

EPA/ADEM Lab Certification ID #41230

  
Mark R. Sutherland, Director



**ALCHEM OF ALABAMA, INC.**  
**Environmental Testing Laboratory**

1526 Pinson Street      325 Oak Leaf Circle  
Tarrant, AL 35217      Hoover, AL 35244

Invoice # **1254**

**Client:** Mr. Jeffrey Kogut  
Bhate Environmental, Inc.  
1608 13th Avenue South  
Birmingham, AL 35205

**Project Name:** McFarland Real Estate  
**Project Location:** Tuscaloosa, AL  
**Sample Matrix:** Water  
**Sampled By:** Jeffrey Kogut  
**Lab Analyst:** Mark R. Sutherland  
**Lab Analyst:** Mark R. Sutherland  
**Test Method:** "Test Methods for Evaluating Solid Waste,"  
SW-846, Method 8260.

**Report Date:** April 11, 2001  
**Project Number:** 9010095  
**P.O Number:**  
**Date Collected:** April 5, 2001  
**Analysis Date:** April 6-10, 2001  
**Analysis Date:** March 4-5, 2001

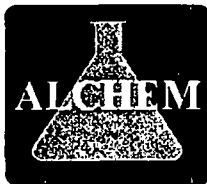
**QUALITY CONTROL DATA**

Compounds	Result	True Value	Range	Units	Blank	%RPD	Spike Rec.	Range%
Tetrachloroethylene	8.9	9.4	6.26-12.24	ppb	BDL	20	103%	80-120

Detection Limit-Practical  
**BDL** - Below Detection Limit  
ppb - Parts Per Billion

EPA/ADEM Lab Certification ID #41230

  
Mark R. Sutherland, Director



**ALCHEM OF ALABAMA, INC.**  
**Environmental Testing Laboratory**

1526 Pinson Street  
Tarrant, AL 35217

325 Oak Leaf Circle  
Hoover, AL 35244

Invoice # 1253

**Client:** Mr. Jeffrey Kogut  
Bhate Environmental, Inc.  
1608 13th Avenue South  
Birmingham, AL 35205

**Project Name:** McFarland Real Estate  
**Project Location:** Tuscaloosa, AL  
**Sample Matrix:** Water  
**Sampled By:** Jeffrey Kogut  
**Lab Analyst:** Mark R. Sutherland  
**Test Method:** "Test Methods for Evaluating Solid Waste," SW-846, Method 8260

**Report Date:** April 5, 2001  
**Project Number:** 9010095  
**P.O Number:**  
**Date Collected:** April 4, 2001  
**Analysis Date:** April 4-5, 2001

VOLATILE ORGANIC COMPOUNDS					
Lab I.D.:	5061	Detection	Lab I.D.:	5061	Detection
Field I.D.:	GP-25	Limit	Field I.D.:	GP-25	Limit
PARAMETERS	mg/L PPM	mg/L PPM	PARAMETERS	mg/L PPM	mg/L PPM
Benzene	BDL	0.005	1,3-Dichloropropane	BDL	0.005
Bromobenzene	BDL	0.005	2,2-Dichloropropane	BDL	0.005
Bromochloromethane	BDL	0.005	1,1-Dichloropropene	BDL	0.005
Bromodichloromethane	BDL	0.005	cis-1,3-Dichloropropene	BDL	0.005
Bromoform	BDL	0.005	trans-1,3-Dichloropropene	BDL	0.005
Bromomethane	BDL	0.005	Ethylbenzene	BDL	0.005
n-Butylbenzene	BDL	0.005	Hexachlorobutadiene	BDL	0.005
sec-Butylbenzene	BDL	0.005	Isopropylbenzene	BDL	0.005
tert-Butylbenzene	BDL	0.005	4-Isopropyltoluene	BDL	0.005
Carbon tetrachloride	BDL	0.005	Methylene Chloride	BDL	0.005
Chlorobenzene	BDL	0.005	Naphthalene	BDL	0.005
Chloroethane	BDL	0.005	n-Propylbenzene	BDL	0.005
Chloroform	BDL	0.005	Styrene	BDL	0.005
Chloromethane	BDL	0.005	1,1,1,2-Tetrachloroethane	BDL	0.005
2-Chlorotoluene	BDL	0.005	1,1,2,2-Tetrachloroethane	BDL	0.005
4-Chlorotoluene	BDL	0.005	Tetrachloroethylene	0.052	0.005
Dibromochloromethane	BDL	0.005	Toluene	BDL	0.005
1,2-Dibromo-3-chloropropane	BDL	0.005	1,2,3-Trichlorobenzene	BDL	0.005
1,2-Dibromoethane	BDL	0.005	1,2,4-Trichlorobenzene	BDL	0.005
Dibromomethane	BDL	0.005	1,1,1-Trichloroethane	BDL	0.005
Dichlorobenzenes (1,2 & 1,3 & 1,4)	BDL	0.005	1,1,2-Trichloroethane	BDL	0.005
Dichlorodifluoromethane	BDL	0.005	Trichloroethylene	BDL	0.005
1,1-Dichloroethane	BDL	0.005	Trichlorofluoromethane	BDL	0.005
1,2-Dichloroethane	BDL	0.005	1,2,3-Trichloropropane	BDL	0.005
1,1-Dichloroethene	BDL	0.005	1,2,4-Trimethylbenzene	BDL	0.005
cis-1,2-Dichloroethene	BDL	0.005	1,3,5-Trimethylbenzene	BDL	0.005
trans-1,2-Dichloroethene	BDL	0.005	Vinyl Chloride	BDL	0.005
1,2-Dichloropropane	BDL	0.005	Xylenes (m, p, o)	BDL	0.005

BDL-Below Detection Limit

mg/L - Milligrams per Liter or Parts Per Million

Mark R. Sutherland, Director

EPA/ADEM Lab Certification ID #41230



**ALCHEM OF ALABAMA, INC.**  
**Environmental Testing Laboratory**

1526 Pinson Street 325 Oak Leaf Circle  
Tarrant, AL 35217 Hoover, AL 35244

Invoice # 1253

**Client:** Mr. Jeffrey Kogut  
Bhate Environmental, Inc.  
1608 13th Avenue South  
Birmingham, AL 35205

**Project Name:** McFarland Real Estate  
**Project Location:** Tuscaloosa, AL  
**Sample Matrix:** Water

**Sampled By:** Jeffrey Kogut  
**Lab Analyst:** Mark R. Sutherland

**Test Method:** "Test Methods for Evaluating Solid Waste," SW-846, Method 8260

**Report Date:** April 5, 2001  
**Project Number:** 9010095  
**P.O Number:**  
**Date Collected:** April 4, 2001  
**Analysis Date:** April 4-5, 2001

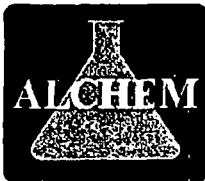
VOLATILE ORGANIC COMPOUNDS					
Lab I.D.:	5062	Detection	Lab I.D.:	5062	Detection
Field I.D.:	GP-26	Limit	Field I.D.:	GP-26	Limit
PARAMETERS	mg/L PPM	mg/L PPM	PARAMETERS	mg/L PPM	mg/L PPM
Benzene	BDL	0.005	1,3-Dichloropropane	BDL	0.005
Bromobenzene	BDL	0.005	2,2-Dichloropropane	BDL	0.005
Bromochloromethane	BDL	0.005	1,1-Dichloropropene	BDL	0.005
Bromodichloromethane	BDL	0.005	cis-1,3-Dichloropropene	BDL	0.005
Bromoform	BDL	0.005	trans-1,3-Dichloropropene	BDL	0.005
Bromomethane	BDL	0.005	Ethylbenzene	BDL	0.005
n-Butylbenzene	BDL	0.005	Hexachlorobutadiene	BDL	0.005
sec-Butylbenzene	BDL	0.005	Isopropylbenzene	BDL	0.005
tert-Butylbenzene	BDL	0.005	4-Isopropyltoluene	BDL	0.005
Carbon tetrachloride	BDL	0.005	Methylene Chloride	BDL	0.005
Chlorobenzene	BDL	0.005	Naphthalene	BDL	0.005
Chloroethane	BDL	0.005	n-Propylbenzene	BDL	0.005
Chloroform	BDL	0.005	Styrene	BDL	0.005
Chloromethane	BDL	0.005	1,1,1,2-Tetrachloroethane	BDL	0.005
2-Chlorotoluene	BDL	0.005	1,1,2,2-Tetrachloroethane	BDL	0.005
4-Chlorotoluene	BDL	0.005	Tetrachloroethylene	0.82	0.005
Dibromochloromethane	BDL	0.005	Toluene	BDL	0.005
1,2-Dibromo-3-chloropropane	BDL	0.005	1,2,3-Trichlorobenzene	BDL	0.005
1,2-Dibromoethane	BDL	0.005	1,2,4-Trichlorobenzene	BDL	0.005
Dibromomethane	BDL	0.005	1,1,1-Trichloroethane	BDL	0.005
Dichlorobenzenes (1,2 & 1,3 & 1,4)	BDL	0.005	1,1,2-Trichloroethane	BDL	0.005
Dichlorodifluoromethane	BDL	0.005	Trichloroethylene	BDL	0.005
1,1-Dichloroethane	BDL	0.005	Trichlorofluoromethane	BDL	0.005
1,2-Dichloroethane	BDL	0.005	1,2,3-Trichloropropane	BDL	0.005
1,1-Dichloroethene	BDL	0.005	1,2,4-Trimethylbenzene	BDL	0.005
cis-1,2-Dichloroethene	BDL	0.005	1,3,5-Trimethylbenzene	BDL	0.005
trans-1,2-Dichloroethene	BDL	0.005	Vinyl Chloride	BDL	0.005
1,2-Dichloropropane	BDL	0.005	Xylenes (m, p, o)	BDL	0.005

BDL-Below Detection Limit

mg/L - Milligrams per Liter or Parts Per Million

  
Mark R. Sutherland, Director

EPA/ADEM Lab Certification ID #41230



**ALCHEM OF ALABAMA, INC.**  
**Environmental Testing Laboratory**

1526 Pinson Street      325 Oak Leaf Circle  
Tarrant, AL 35217      Hoover, AL 35244

Invoice # 1253

**Client:** Mr. Jeffrey Kogut  
Bhate Environmental, Inc.  
1608 13th Avenue South  
Birmingham, AL 35205

**Project Name:** McFarland Real Estate  
**Project Location:** Tuscaloosa, AL  
**Sample Matrix:** Water

**Sampled By:** Jeffrey Kogut  
**Lab Analyst:** Mark R. Sutherland

**Test Method:** "Test Methods for Evaluating Solid Waste," SW-846, Method 8260

**Report Date:** April 5, 2001  
**Project Number:** 9010095  
**P.O Number:**  
**Date Collected:** April 4, 2001  
**Analysis Date:** April 4-5, 2001

VOLATILE ORGANIC COMPOUNDS					
Lab I.D.:	5063	Detection	Lab I.D.:	5063	Detection
Field I.D.:	GP-27	Limit	Field I.D.:	GP-27	Limit
PARAMETERS:	mg/L PPM	mg/L PPM	PARAMETERS:	mg/L PPM	mg/L PPM
Benzene	BDL	0.005	1,3-Dichloropropane	BDL	0.005
Bromobenzene	BDL	0.005	2,2-Dichloropropane	BDL	0.005
Bromochloromethane	BDL	0.005	1,1-Dichloropropene	BDL	0.005
Bromodichloromethane	BDL	0.005	cis-1,3-Dichloropropene	BDL	0.005
Bromoform	BDL	0.005	trans-1,3-Dichloropropene	BDL	0.005
Bromomethane	BDL	0.005	Ethylbenzene	BDL	0.005
n-Butylbenzene	BDL	0.005	Hexachlorobutadiene	BDL	0.005
sec-Butylbenzene	BDL	0.005	Isopropylbenzene	BDL	0.005
tert-Butylbenzene	BDL	0.005	4-Isopropyltoluene	BDL	0.005
Carbon tetrachloride	BDL	0.005	Methylene Chloride	BDL	0.005
Chlorobenzene	BDL	0.005	Naphthalene	BDL	0.005
Chloroethane	BDL	0.005	n-Propylbenzene	BDL	0.005
Chloroform	BDL	0.005	Styrene	BDL	0.005
Chloromethane	BDL	0.005	1,1,1,2-Tetrachloroethane	BDL	0.005
2-Chlorotoluene	BDL	0.005	1,1,2,2-Tetrachloroethane	BDL	0.005
4-Chlorotoluene	BDL	0.005	Tetrachloroethylene	BDL	0.005
Dibromochloromethane	BDL	0.005	Toluene	BDL	0.005
1,2-Dibromo-3-chloropropane	BDL	0.005	1,2,3-Trichlorobenzene	BDL	0.005
1,2-Dibromoethane	BDL	0.005	1,2,4-Trichlorobenzene	BDL	0.005
Dibromomethane	BDL	0.005	1,1,1-Trichloroethane	BDL	0.005
Dichlorobenzenes (1,2 & 1,3 & 1,4)	BDL	0.005	1,1,2-Trichloroethane	BDL	0.005
Dichlorodifluoromethane	BDL	0.005	Trichloroethylene	BDL	0.005
1,1-Dichloroethane	BDL	0.005	Trichlorofluoromethane	BDL	0.005
1,2-Dichloroethane	BDL	0.005	1,2,3-Trichloropropane	BDL	0.005
1,1-Dichloroethene	BDL	0.005	1,2,4-Trimethylbenzene	BDL	0.005
cis-1,2-Dichloroethene	BDL	0.005	1,3,5-Trimethylbenzene	BDL	0.005
trans-1,2-Dichloroethene	BDL	0.005	Vinyl Chloride	BDL	0.005
1,2-Dichloropropane	BDL	0.005	Xylenes (m, p, o)	BDL	0.005

BDL-Below Detection Limit

mg/L - Milligrams per Liter or Parts Per Million

EPA/ADEM Lab Certification ID #41230

  
Mark R. Sutherland, Director



**ALCHEM OF ALABAMA, INC.**  
*Environmental Testing Laboratory*

Invoice # **1253**

1526 Pinson Street      325 Oak Leaf Circle  
Tarrant, AL 35217      Hoover, AL 35244

**Client:** Mr. Jeffrey Kogut  
Bhate Environmental, Inc.  
1608 13th Avenue South  
Birmingham, AL 35205

**Project Name:** McFarland Real Estate  
**Project Location:** Tuscaloosa, AL  
**Sample Matrix:** Water  
**Sampled By:** Jeffrey Kogut  
**Lab Analyst:** Mark R. Sutherland  
**Test Method:** "Test Methods for Evaluating Solid Waste,"  
SW-846, Method 8260.

**Report Date:** April 5, 2001  
**Project Number:** 9010095  
**P.O Number:**  
**Date Collected:** April 4, 2001  
**Analysis Date:** April 4-5, 2001

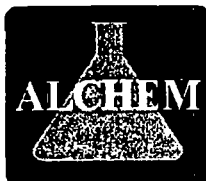
**QUALITY CONTROL DATA**

Compounds	Result	True Value	Range	Units	Blank	%RPD	Spike Rec.	Range%
Tetrachloroethylene	8.6	9.4	6.26-12.24	ppb	BDL	20	103%	80-120

Detection Limit-Practical  
BDL - Below Detection Limit  
ppb - Parts Per Billion

EPA/ADEM Lab Certification ID #41230

  
Mark R. Sutherland, Director



**ALCHEM OF ALABAMA, INC.**  
**Environmental Testing Laboratory**

1526 Pinson Street 325 Oak Leaf Circle  
Tarrant, AL 35217 Hoover, AL 35244

Invoice # 1261

**Client:** Mr. Damion Escoffery  
Bhate Environmental, Inc.  
1608 13th Avenue South  
Birmingham, AL 35205

**Project Name:** Northington Dry Cleaners  
**Project Location:** Alabama  
**Sample Matrix:** Water  
**Sampled By:** Damion Escoffery  
**Lab Analyst:** Mark R. Sutherland  
**Test Method:** "Test Methods for Evaluating Solid Waste," SW-846, Method 8260

**Report Date:** April 12, 2001  
**Project Number:** 9010095  
**P.O Number:** 32010530  
**Date Collected:** April 9, 2001  
**Analysis Date:** April 10-11, 2001

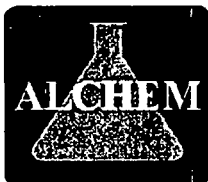
VOLATILE ORGANIC COMPOUNDS					
Lab I.D.:	5076	Detection	Lab I.D.:	5076	Detection
Field I.D.:	MW-7	Limit	Field I.D.:	MW-7	Limit
PARAMETERS	mg/L PPM	mg/L PPM	PARAMETERS	mg/L PPM	mg/L PPM
Benzene	BDL	0.005	1,3-Dichloropropane	BDL	0.005
Bromobenzene	BDL	0.005	2,2-Dichloropropane	BDL	0.005
Bromochloromethane	BDL	0.005	1,1-Dichloropropene	BDL	0.005
Bromodichloromethane	BDL	0.005	cis-1,3-Dichloropropene	BDL	0.005
Bromoform	BDL	0.005	trans-1,3-Dichloropropene	BDL	0.005
Bromomethane	BDL	0.005	Ethylbenzene	BDL	0.005
n-Butylbenzene	BDL	0.005	Hexachlorobutadiene	BDL	0.005
sec-Butylbenzene	BDL	0.005	Isopropylbenzene	BDL	0.005
tert-Butylbenzene	BDL	0.005	4-Isopropyltoluene	BDL	0.005
Carbon tetrachloride	BDL	0.005	Methylene Chloride	BDL	0.005
Chlorobenzene	BDL	0.005	Naphthalene	BDL	0.005
Chloroethane	BDL	0.005	n-Propylbenzene	BDL	0.005
Chloroform	BDL	0.005	Styrene	BDL	0.005
Chloromethane	BDL	0.005	1,1,1,2-Tetrachloroethane	BDL	0.005
2-Chlorotoluene	BDL	0.005	1,1,2,2-Tetrachloroethane	BDL	0.005
4-Chlorotoluene	BDL	0.005	Tetrachloroethylene	0.046	0.005
Dibromochloromethane	BDL	0.005	Toluene	BDL	0.005
1,2-Dibromo-3-chloropropane	BDL	0.005	1,2,3-Trichlorobenzene	BDL	0.005
1,2-Dibromoethane	BDL	0.005	1,2,4-Trichlorobenzene	BDL	0.005
Dibromomethane	BDL	0.005	1,1,1-Trichloroethane	BDL	0.005
Dichlorobenzenes (1,2 & 1,3 & 1,4)	BDL	0.005	1,1,2-Trichloroethane	BDL	0.005
Dichlorodifluoromethane	BDL	0.005	Trichloroethylene	BDL	0.005
1,1-Dichloroethane	BDL	0.005	Trichlorofluoromethane	BDL	0.005
1,2-Dichloroethane	BDL	0.005	1,2,3-Trichloropropane	BDL	0.005
1,1-Dichloroethene	BDL	0.005	1,2,4-Trimethylbenzene	BDL	0.005
cis-1,2-Dichloroethene	BDL	0.005	1,3,5-Trimethylbenzene	BDL	0.005
trans-1,2-Dichloroethene	BDL	0.005	Vinyl Chloride	BDL	0.005
1,2-Dichloropropane	BDL	0.005	Xylenes (m, p, o)	BDL	0.005

BDL-Below Detection Limit

mg/L - Milligrams per Liter or Parts Per Million

EPA/ADEM Lab Certification ID #41230

  
Mark R. Sutherland, Director



**ALCHEM OF ALABAMA, INC.**  
*Environmental Testing Laboratory*

1526 Pinson Street      325 Oak Leaf Circle  
Tarrant, AL 35217      Hoover, AL 35244

Invoice # **1261**

**Client:** Mr. Damion Escoffery  
Bhate Environmental, Inc.  
1608 13th Avenue South  
Birmingham, AL 35205

**Project Name:** Northington Dry Cleaners  
**Project Location:** Alabama  
**Sample Matrix:** Water  
**Sampled By:** Damion Escoffery  
**Lab Analyst:** Mark R. Sutherland  
**Test Method:** "Test Methods for Evaluating Solid Waste,"  
SW-846, Method 8260.

**Report Date:** April 12, 2001  
**Project Number:** 9010095  
**P.O Number:** 32010530  
**Date Collected:** April 9, 2001  
**Analysis Date:** April 10-11, 2001

**QUALITY CONTROL DATA**

Compounds	Result	True Value	Range	Units	Blank	%RPD	Spike Rec.	Range%
Tetrachloroethylene	9.6	9.4	6.26-12.24	ppb	BDL	11	90%	80-120

Detection Limit-Practical  
**BDL** - Below Detection Limit  
ppb - Parts Per Billion

EPA/ADEM Lab Certification ID #41230

  
Mark R. Sutherland, Director

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

PROJECT NO.:		PROJECT NAME: <u>McFarland Real Estate</u>		CONTAINERS		E Y		E Y		Preserved (Code)							
P.O. NO.:		LAB DESTINATION: <u>ALCHEM</u>								Iced (yes / no)							
SAMPLER(s) NAME: <u>Jeff Kogut</u>										Code: A - None B - HN03 C - H <sub>2</sub> SO <sub>4</sub> D - NaOH E - HCl F -							
TITLE:										REMARKS							
Lab Code - for Lab use only	Yr. Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST METHOD: <u>8260</u>	TEST METHOD:	TEST METHOD:	TEST METHOD:	TEST METHOD:
<u>5064</u>	<u>4/5</u>	<u>2pm</u>		<u>X</u>	<u>GP-23</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>2</u>	<u>40ml</u>	<u>VOA</u>	<u>X</u>				
<u>5065</u>	<u>4/5</u>	<u>4pm</u>		<u>X</u>	<u>GP-24</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>2</u>	<u>40ml</u>	<u>VOA</u>	<u>X</u>				
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								

Relinquished by: (Signature): <u>Jeffrey Kogut</u>	Date: <u>4/6/01</u>	Time: <u>1200</u>	Received by: (Signature):	Date:	Time:	LAB COMMENTS <u>Normal Turn Around</u>		
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:	REMARKS ON SAMPLE RECEIVED BY LAB:	SAMPLE SHIPPING METHOD	SAMPLE CONTAINER TYPE
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature): <u>[Signature]</u>	Date: <u>4/6/01</u>	Time: <u>1200</u>	Bottle Intact: <input checked="" type="checkbox"/>	Hand Delivery: <input checked="" type="checkbox"/>	P = Plastic
						Preserved: <input type="checkbox"/>	Air (specify): <input type="checkbox"/>	G = Glass
						Chilled: <input checked="" type="checkbox"/>	Other (specify): <input type="checkbox"/>	GA = Glass Amber
						Other: <input type="checkbox"/>		

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

PROJECT NO.: 9010095 PROJECT NAME: Northington Dry Cleaners  
P.O. NO.: 32910530 LAB DESTINATION: AL Chem

SAMPLER(s) NAME: TITLE: D. Escoffery

Lab Code - for Lab use only	Yr. Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL WATER SOLID OTHER NON-AQUEOUS LIQUID	CONTAINERS			TEST METHOD	TEST METHOD	TEST METHOD	TEST METHOD	TEST METHOD	TEST METHOD	REMARKS
							No.	Volume	Type							
5076	4-9-01	1530			MW-7	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	3	400 mL	GA							
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
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						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:	LAB COMMENTS		
D. Escoffery	4-9-01	1530						
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:	REMARKS ON SAMPLE RECEIVED BY LAB:	SAMPLE SHIPPING METHOD	SAMPLE CONTAINER TYPE
						Bottle Intact: <input checked="" type="checkbox"/>	Hand Delivery <input checked="" type="checkbox"/>	P = Plastic
						Preserved: <input type="checkbox"/>	Air (specify) <input type="checkbox"/>	G = Glass
						Chilled: <input checked="" type="checkbox"/>	Other (specify) <input type="checkbox"/>	GA = Glass Amber
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:			
				4/9/01	1630			

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

PROJECT NO.:		PROJECT NAME: McFarland Real Estate		CONTAINERS		Preserved (Code)									
P.O. NO.:		LAB DESTINATION: Southerland / Alchem				Iced (yes / no)									
SAMPLER(s) NAME: Jeffrey Kogut		TITLE:				Code: A - None B - HNO3 C - H2SO4 D - NaOH E - HCl F -									
Lab Code - for Lab use only	Yr. Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL WATER SOLID OTHER NON-AQUEOUS LIQUID	No.	Volume	Type	TEST METHOD: 8260	TEST METHOD:	TEST METHOD:	TEST METHOD:	TEST METHOD:	REMARKS
5061	4/4	10:00		X	GP-25	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	2	40ml	VGA	X					
5062	4/4	1:00		X	GP-26	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1	40ml	VGA	X					
5063	4/4	5:30		X	GP-27	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	2	40ml	VGA	X					
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									
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						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									
						<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									

Relinquished by: (Signature): Jeffrey Kogut	Date: 4/4	Time: 7pm	Received by: (Signature):	Date:	Time:	LAB COMMENTS: Rush 12 hour turnaround Call results to 205-807-4755		
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:	REMARKS ON SAMPLE RECEIVED BY LAB:	SAMPLE SHIPPING METHOD	SAMPLE CONTAINER TYPE
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature): M.R. Smith	Date: 4/4/01	Time: 1900	Bottle Intact: <input checked="" type="checkbox"/>	Hand Delivery: <input checked="" type="checkbox"/>	P = Plastic
						Preserved: <input type="checkbox"/>	Air (specify): <input type="checkbox"/>	G = Glass
						Chilled: <input checked="" type="checkbox"/>	Other (specify): <input type="checkbox"/>	GA = Glass Amber
						Other: <input type="checkbox"/>		

# GROUNDWATER

5/30/01

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Lab Number: 01-A73589  
Sample ID: MW-1  
Sample Type: Ground water  
Site ID:

Date Collected: 5/30/01  
Time Collected: 12:00  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Chloroform	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73589  
Sample ID: MW-1  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Tetrachloroethene	43.6	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	13:58	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73589  
 Sample ID: MW-1  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike		Date	Method
				Recovery (%)			
-----							

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
-----	-----	-----
VOA Surr, 1,2-DCA, d4	102.	68. - 143.
VOA Surr, Toluene d8	109.	78. - 127.
VOA Surr, 4-BFB	101.	73. - 127.
VOA Surr, DBFM	110.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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 permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.



## ANALYTICAL REPORT

BHATE 2701  
1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A73582  
Sample ID: MW-2  
Sample Type: Ground water  
Site ID:

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Date Collected: 5/29/01  
Time Collected: 15:30  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Chloroform	13.5	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73582  
Sample ID: MW-2  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	5.8	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Tetrachloroethene	184.	ug/l	20.0	2.0	10	6/ 4/01	2:16	N. Hurt	8260B	5722
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Trichloroethene	3.1	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	6:14	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73582  
 Sample ID: MW-2  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
<hr/>						

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
<hr/>		
VOA Surr, 1,2-DCA, d4	97.	68. - 143.
VOA Surr, Toluene d8	107.	78. - 127.
VOA Surr, 4-BFB	102.	73. - 127.
VOA Surr, DBFM	106.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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 permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.



## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Lab Number: 01-A73585  
Sample ID: MW-3  
Sample Type: Ground water  
Site ID:

Date Collected: 5/29/01  
Time Collected: 13:40  
Date Received: 6/1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Chloroform	17.6	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73585  
Sample ID: MW-3  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	69.4	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Tetrachloroethene	110.	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Trichloroethene	22.2	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	8:04	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73585  
Sample ID: MW-3  
Project: 9010095  
Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike	Date	Method
				Recovery (%)		

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	100.	68. - 143.
VOA Surr, Toluene d8	107.	78. - 127.
VOA Surr, 4-BFB	100.	73. - 127.
VOA Surr, DBFM	108.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.

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Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Lab Number: 01-A73586  
Sample ID: MW-4  
Sample Type: Ground water  
Site ID:

Date Collected: 5/29/01  
Time Collected: 13:05  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Chloroform	12.5	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73586

Sample ID: MW-4

Project: 9010095

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Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	19.2	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Tetrachloroethene	73.2	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Trichloroethene	11.0	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	12:07	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73586  
Sample ID: MW-4  
Project: 9010095  
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### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike	Date	Method
				Recovery (%)		

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	103.	68. - 143.
VOA Surr, Toluene d8	109.	78. - 127.
VOA Surr, 4-BFB	104.	73. - 127.
VOA Surr, DBFM	108.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Lab Number: 01-A73584  
Sample ID: MW-5  
Sample Type: Ground water  
Site ID:

Date Collected: 5/29/01  
Time Collected: 12:25  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Chloroform	25.2	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73584  
Sample ID: MW-5  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Tetrachloroethene	5.4	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	7:28	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73584  
Sample ID: MW-5  
Project: 9010095  
Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike	Date	Method
				Recovery (%)		
-----	-----	-----	-----	-----	-----	-----

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
-----	-----	-----
VOA Surr, 1,2-DCA, d4	101.	68. - 143.
VOA Surr, Toluene d8	106.	78. - 127.
VOA Surr, 4-BFB	102.	73. - 127.
VOA Surr, DBFM	110.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Lab Number: 01-A73581  
Sample ID: MW-6  
Sample Type: Ground water  
Site ID:

Date Collected: 5/29/01  
Time Collected: 14:40  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Chloroform	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73581  
 Sample ID: MW-6  
 Project: 9010095  
 Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	53.2	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Tetrachloroethene	203.	ug/l	20.0	2.0	10	6/ 4/01	1:39	N. Hurt	8260B	5722
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Trichloroethene	7.2	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:37	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73581  
Sample ID: MW-6  
Project: 9010095  
Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike	Date	Method
				Recovery (%)		

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	98.	68. - 143.
VOA Surr, Toluene d8	110.	78. - 127.
VOA Surr, 4-BFB	102.	73. - 127.
VOA Surr, DBFM	108.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

End of Sample Report.



## ANALYTICAL REPORT

BHATE 2701  
1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A73588  
Sample ID: MW-7  
Sample Type: Ground water  
Site ID:

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Date Collected: 5/30/01  
Time Collected: 9:45  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Chloroform	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73588  
 Sample ID: MW-7  
 Project: 9010095  
 Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	8.1	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Tetrachloroethene	5.0	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	15:10	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73588

Sample ID: MW-7

Project: 9010095

Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike		Date	Method
				Recovery (%)			
-----							

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
-----	-----	-----
VOA Surr, 1,2-DCA, d4	96.	68. - 143.
VOA Surr, Toluene d8	111.	78. - 127.
VOA Surr, 4-BFB	104.	73. - 127.
VOA Surr, DBFM	108.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.

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Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A73590  
Sample ID: MW-9  
Sample Type: Ground water  
Site ID:

Project: 9010095  
Project Name: NORTINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Date Collected: 5/30/01  
Time Collected: 10:00  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Chloroform	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73590  
Sample ID: MW-9  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Tetrachloroethene	221.	ug/l	20.0	2.0	10	6/ 4/01	15:46	N. Hurt	8260B	5722
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	14:34	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73590  
 Sample ID: MW-9  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
<hr style="border-top: 1px dashed black;"/>						

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
<hr style="border-top: 1px dashed black;"/>		
VOA Surr, 1,2-DCA, d4	100.	68. - 143.
VOA Surr, Toluene d8	112.	78. - 127.
VOA Surr, 4-BFB	104.	73. - 127.
VOA Surr, DBFM	107.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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 permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A73583  
Sample ID: MW-10  
Sample Type: Ground water  
Site ID:

Project: 9010095  
Project Name: NORTINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Date Collected: 5/29/01  
Time Collected: 15:25  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Chloroform	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73583  
Sample ID: MW-10  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Tetrachloroethene	82.5	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 4/01	1:03	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73583  
Sample ID: MW-10  
Project: 9010095  
Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike		Date	Method
				Recovery (%)			

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	96.	68. - 143.
VOA Surr, Toluene d8	109.	78. - 127.
VOA Surr, 4-BFB	102.	73. - 127.
VOA Surr, DBFM	105.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

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Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 9010095  
Project Name: NORTINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Lab Number: 01-A73587  
Sample ID: MW-11  
Sample Type: Ground water  
Site ID:

Date Collected: 5/30/01  
Time Collected: 11:00  
Date Received: 6/1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Chloroform	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73587  
Sample ID: MW-11  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Tetrachloroethene	291.	ug/l	20.0	2.0	10	6/ 6/01	14:15	N. Hurt	8260B	5722
Toluene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 5/01	18:00	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73587  
 Sample ID: MW-11  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
<hr/>						

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
<hr/>		
VOA Surr, 1,2-DCA, d4	101.	68. - 143.
VOA Surr, Toluene d8	111.	78. - 127.
VOA Surr, 4-BFB	101.	73. - 127.
VOA Surr, DBFM	110.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
 This report shall not be reproduced except in full and with  
 permission of the laboratory.

Report Approved By: 

Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A73578

Sample ID: MW-12

Sample Type: Ground water

Site ID:

Project: 9010095

Project Name: NORTINGTON CLEANERS

Sampler: M. WENZEL/C. MCNABB

Date Collected: 5/25/01

Time Collected: 17:00

Date Received: 6/ 1/01

Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Chloroform	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73578  
Sample ID: MW-12  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Tetrachloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:46	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73578  
 Sample ID: MW-12  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
<hr style="border-top: 1px dashed black;"/>						

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
<hr style="border-top: 1px dashed black;"/>		
VOA Surr, 1,2-DCA, d4	101.	68. - 143.
VOA Surr, Toluene d8	108.	78. - 127.
VOA Surr, 4-BFB	103.	73. - 127.
VOA Surr, DBFM	109.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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 permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.



## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A73572  
Sample ID: MW-13  
Sample Type: Ground water  
Site ID:

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Date Collected: 5/25/01  
Time Collected: 18:55  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Chloroform	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73572  
Sample ID: MW-13  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Tetrachloroethene	38.3	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:04	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73572  
 Sample ID: MW-13  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
<hr style="border-top: 1px dashed black;"/>						

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
<hr style="border-top: 1px dashed black;"/>		
VOA Surr, 1,2-DCA, d4	98.	68. - 143.
VOA Surr, Toluene d8	111.	78. - 127.
VOA Surr, 4-BFB	103.	73. - 127.
VOA Surr, DBFM	109.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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 permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.



## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Lab Number: 01-A73577  
Sample ID: MW-14  
Sample Type: Ground water  
Site ID:

Date Collected: 5/25/01  
Time Collected: 17:50  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*VOLATILE ORGANICS*</b>										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Chloroform	9.8	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73577  
Sample ID: MW-14  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Tetrachloroethene	11.7	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	3:09	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73577  
 Sample ID: MW-14  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
<hr style="border-top: 1px dashed black;"/>						

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
<hr style="border-top: 1px dashed black;"/>		
VOA Surr, 1,2-DCA, d4	97.	68. - 143.
VOA Surr, Toluene d8	109.	78. - 127.
VOA Surr, 4-BFB	103.	73. - 127.
VOA Surr, DBFM	107.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.

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Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A73574  
Sample ID: MW-15  
Sample Type: Ground water  
Site ID:

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Date Collected: 5/25/01  
Time Collected: 18:40  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Chloroform	3.9	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73574

Sample ID: MW-15

Project: 9010095

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Tetrachloroethene	16.8	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:18	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73574  
 Sample ID: MW-15  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike		Date	Method
				Recovery (%)			
-----	-----	-----	-----	-----	-----	-----	-----

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
-----	-----	-----
VOA Surr, 1,2-DCA, d4	97.	68. - 143.
VOA Surr, Toluene d8	109.	78. - 127.
VOA Surr, 4-BFB	101.	73. - 127.
VOA Surr, DBFM	109.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.

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Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.



## ANALYTICAL REPORT

BHATE 2701  
1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A73575  
Sample ID: MW-16  
Sample Type: Ground water  
Site ID:

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Date Collected: 5/25/01  
Time Collected: 17:55  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Chloroform	3.5	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73575

Sample ID: MW-16

Project: 9010095

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Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Tetrachloroethene	38.4	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	1:55	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73575  
 Sample ID: MW-16  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
<hr style="border-top: 1px dashed black;"/>						

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
<hr style="border-top: 1px dashed black;"/>		
VOA Surr, 1,2-DCA, d4	99.	68. - 143.
VOA Surr, Toluene d8	110.	78. - 127.
VOA Surr, 4-BFB	103.	73. - 127.
VOA Surr, DBFM	108.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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 permission of the laboratory.

Report Approved By: 

Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Lab Number: 01-A73576  
Sample ID: MW-17  
Sample Type: Ground water  
Site ID:

Date Collected: 5/25/01  
Time Collected: 18:00  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Chloroform	64.2	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73576  
Sample ID: MW-17  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Tetrachloroethene	197.	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Bromodichloromethane	4.3	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	2:32	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73576  
Sample ID: MW-17  
Project: 9010095  
Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike	Date	Method
				Recovery (%)		

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	100.	68. - 143.
VOA Surr, Toluene d8	111.	78. - 127.
VOA Surr, 4-BFB	105.	73. - 127.
VOA Surr, DBFM	108.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.

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Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Project: 9010095  
Project Name: NORTINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Lab Number: 01-A73573  
Sample ID: MW-18  
Sample Type: Ground water  
Site ID:

Date Collected: 5/25/01  
Time Collected: 19:05  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Chloroform	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73573

Sample ID: MW-18

Project: 9010095

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Tetrachloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	0:41	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73573  
 Sample ID: MW-18  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike		Date	Method
				Recovery (%)			
-----							

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
-----	-----	-----
VOA Surr, 1,2-DCA, d4	97.	68. - 143.
VOA Surr, Toluene d8	107.	78. - 127.
VOA Surr, 4-BFB	102.	73. - 127.
VOA Surr, DBFM	108.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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 permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701

1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A73579  
Sample ID: CW-1  
Sample Type: Ground water  
Site ID:

Project: 9010095  
Project Name: NORTINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Date Collected: 5/21/01  
Time Collected: 12:00  
Date Received: 6/ 1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Chloroform	37.9	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73579

Sample ID: CW-1

Project: 9010095

Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Tetrachloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Bromodichloromethane	6.6	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	4:23	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73579  
 Sample ID: CW-1  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
<hr/>						

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
<hr/>		
VOA Surr, 1,2-DCA, d4	101.	68. - 143.
VOA Surr, Toluene d8	109.	78. - 127.
VOA Surr, 4-BFB	102.	73. - 127.
VOA Surr, DBFM	107.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
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 permission of the laboratory.

Report Approved By:  Report Date: 6/ 6/01

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 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

## ANALYTICAL REPORT

BHATE 2701  
1608 13TH AVENUE SOUTH  
BIRMINGHAM, AL 35205

Lab Number: 01-A73580  
Sample ID: TRIP BLANK  
Sample Type: Ground water  
Site ID:

Project: 9010095  
Project Name: NORTHINGTON CLEANERS  
Sampler: M. WENZEL/C. MCNABB

Date Collected: 5/21/01  
Time Collected: 12:00  
Date Received: 6/1/01  
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*VOLATILE ORGANICS*										
Acetone	ND	ug/l	50.0	50.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Benzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Bromobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Bromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Bromoform	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Bromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
2-Butanone	ND	ug/l	50.0	50.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
n-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
t-Butylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Carbon disulfide	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Chlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Chloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Chloroform	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Chloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Dibromochloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Dibromomethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73580  
Sample ID: TRIP BLANK  
Project: 9010095  
Page 2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Ethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
2-Hexanone	ND	ug/l	10.0	10.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Isopropylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Methylene chloride	ND	ug/l	5.0	5.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Naphthalene	ND	ug/l	5.0	5.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
n-Propylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Styrene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Tetrachloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Toluene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Trichloroethene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Vinyl chloride	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Xylenes, Total	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Bromodichloromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	6/ 3/01	5:00	N. Hurt	8260B	3064

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 01-A73580  
 Sample ID: TRIP BLANK  
 Project: 9010095  
 Page 3

### TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
<hr/>						

ND - Not detected at the report limit.

Surrogate	% Recovery	Target Range
<hr/>		
VOA Surr, 1,2-DCA, d4	100.	68. - 143.
VOA Surr, Toluene d8	109.	78. - 127.
VOA Surr, 4-BFB	102.	73. - 127.
VOA Surr, DBFM	107.	76. - 135.

# - Recovery outside Laboratory historical limits.

All results reported on a wet weight basis.

These results relate only to the items tested.  
 This report shall not be reproduced except in full and with  
 permission of the laboratory.

Report Approved By:



Report Date: 6/ 6/01

Paul E. Lane, Jr., Lab Director  
 Michael H. Dunn, M.S., Technical Director  
 Johnny A. Mitchell, Dir. Technical Serv.  
 Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
 Glenn L. Norton, Technical Serv.  
 Kelly S. Comstock, Technical Serv.  
 Pamela A. Langford, Technical Serv.

End of Sample Report.

# TESTAMERICA, INC. - NASHVILLE

## COOLER RECEIPT FORM

Client: BHATE (\*2701) BC# 239603

Cooler Received On: June 1st And Opened On: June 1st By: Cray Allen  
2001

Cray R. Allen  
(Signature)

1. Temperature of Cooler when opened 3.0 Degrees Celsius
2. Were custody seals on outside of cooler?.....YES...☒ NO
- a. If yes, how many, what kind and where: \_\_\_\_\_
3. Were custody seals on containers and intact?.....☒ NO ☒ YES
4. Were the seals intact, signed, and dated correctly?.....☒ YES ☒ NO
5. Were custody papers inside cooler?.....☒ YES ☒ NO
6. Were custody papers properly filled out (ink, signed, etc)?.....☒ YES ☒ NO
7. Did you sign the custody papers in the appropriate place?.....☒ YES ☒ NO
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Was sufficient ice used (if appropriate)?.....☒ YES ☒ NO
10. Did all bottles arrive in good condition (unbroken)?.....☒ YES ☒ NO
11. Were all bottle labels complete (#, date, signed, pres, etc)?.....☒ YES ☒ NO
12. Did all bottle labels and tags agree with custody papers?.....☒ YES ☒ NO
13. Were correct bottles used for the analysis requested?.....☒ YES ☒ NO
14. a. Were VOA vials received?.....☒ YES ☒ NO
- b. Was there any observable head space present in any VOA vial?.....☒ NO ☒ YES
15. Was sufficient amount of sample sent in each bottle?.....☒ YES ☒ NO
16. Were correct preservatives used?.....☒ YES ☒ NO
17. Was residual chlorine present?.....☒ NO ☒ YES
18. Corrective action taken, if necessary:

See attached for resolution

#270

## CHAIN-OF-CUSTODY

Page: 1 of 223

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

PROJECT NO.: 9010095 PROJECT NAME: NORTHINGTON CLEANERS

P.O. NO.: 32010782 LAB DESTINATION: TEST AMERICA

SAMPLER(s) NAME: M. WENZEL / C. McNabb

TITLE: GEOTECHNICAL / TECHNICIAN

Lab Code - for Lab use only	Yr. Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST METHOD: 8260	TEST METHOD:	TEST METHOD:	TEST METHOD:	TEST METHOD:	TEST METHOD:	REMARKS
	23 MAY	1855		K	MW-13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40ml	GA	X						E 73572
	25 MAY	1945		X	MW-18	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40ml	GA	X						E 573
	25 MAY	1840		X	MW-15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40ml	GA	X						E 574
	25 MAY	1755		X	MW-16	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40ml	GA	X						E 575
	25 MAY	1800		X	MW-17	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40ml	GA	X						E 576
	25 MAY	1750		X	MW-14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40ml	GA	X						E 577
	25 MAY	1700		X	MW-12	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40ml	GA	X						E 578
	21 MAY	1200		X	CW-1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40ml	GA	X						E 579
	21 MAY	1200		X	TB	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	40ml	G	X						E 580
	29 MAY	1440		X	MW-6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40ml	GA	X						E 73581

RECEIVED

JUN 7 2001

BHATE ENVIRONMENTAL

Relinquished by: (Signature): M. Wenzel	Date: 31 MAY 01 Time: 1525	Received by: (Signature): Andrew Castleberry	Date: 5/31/01 Time: 1525	LAB COMMENTS Fax COC To Birmingham Office Fax # (205) 424-4128		
Relinquished by: (Signature): A. Castleberry	Date: 5/31/01 Time: 1615	Received by: (Signature): Velocity Express	Date: 5/31/01 Time: 1615	REMARKS ON SAMPLE RECEIVED BY LAB:	SAMPLE SHIPPING METHOD	SAMPLE CONTAINER TYPE
Relinquished by: (Signature):	Date:	Received by: (Signature): C. R. Allen	Date: 6-01-01 Time: 0900	Bottle Intact: <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	P = Plastic
				Preserved: <input type="checkbox"/>	Air (specify) <input type="checkbox"/>	G = Glass
				Chilled: <input type="checkbox"/>	Other (specify) <input type="checkbox"/>	GA = Glass Amber
				Other: <input type="checkbox"/>		

1608 13th Avenue South  
Birmingham, Alabama 35205  
(205) 918-4000 (FAX) (205) 918-4050

PROJECT NO.: 9010495 PROJECT NAME: NORTHINGTON CLEANERS

P.O. NO.: 32010702 LAB DESTINATION: TEST AMERICA

SAMPLER(S) NAME: M. WENZEL / C. MENABO

TITLE: GEOLOGIST / TECHNICIAN

Lab Code - for Lab use only	Yr. <u>01</u>	Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: VOC METHOD: <u>8264</u>	TEST: PCB METHOD: <u>TECP</u>	TEST: METHOD: <u>TECP</u>	TEST: METHOD: <u>TECP</u>	TEST: METHOD: <u>TECP</u>	TEST: METHOD: <u>TECP</u>	TEST: METHOD: <u>TECP</u>	TEST: METHOD: <u>TECP</u>	REMARKS
		29 MAY	1530		X	MW-2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40 ml	GA	X							E	73582
		29 MAY	1525		X	MW-10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40 ml	GA	X							E	583
		29 MAY	1225		X	MW-5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40 ml	GA	X							E	584
		29 MAY	1340		X	MW-3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40 ml	GA	X							E	585
		29 MAY	1345		X	MW-4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40 ml	GA	X							E	586
		30 MAY	1104		X	MW-11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40 ml	GA	X							E	587
		30 MAY	0945		X	MW-7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40 ml	GA	X							E	588
		30 MAY	1200		X	MW-1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40 ml	GA	X							E	589
		30 MAY	1000		X	MW-9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	40 ml	GA	X							E	73590
		29 MAY	1340	X		MW-15 (TDW)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	4 oz.	G		X							31 MAY 01 MW

BC#  
239603

Relinquished by: (Signature): <i>M. Wenzel</i>	Date: 31 MAY 01	Time: 1525	Received by: (Signature): <i>Andrea Carterberry</i>	Date: 31 MAY 01	Time: 1525	LAB COMMENTS				
Relinquished by: (Signature): <i>Andrea Carterberry</i>	Date: 31 MAY 01	Time: 1615	Received by: (Signature): <i>Velocity Express</i>	Date: 31 MAY 01	Time: 1615	REMARKS ON SAMPLE RECEIVED BY LAB:				
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature): <i>Capitol</i>	Date: 6-01-01	Time: 0900	Bottle Intact:	<input type="checkbox"/>	Hand Delivery	<input type="checkbox"/>	P = Plastic
						Preserved:	<input type="checkbox"/>	Air (specify)	<input type="checkbox"/>	G = Glass
						Chilled:	<input type="checkbox"/>	Other (specify)	<input type="checkbox"/>	GA = Glass Amber
						Other:	<input type="checkbox"/>			

Fax COC To  
Birmingham Office  
Fax # (205) 424-4128



Real Estate Development  
 2525 Bell Road  
 Montgomery, AL 36117  
 334 / 270-2727 - Phone  
 334 / 270-5588 - Fax  
 ctrotman@bellsouth.net

**THE  
 TROTMAN  
 COMPANY, INC.**

# Fax

<b>To:</b> Ann Cross	<b>From:</b> Sheila T. Sheehan
<b>Fax:</b> 279-3050	<b>Pages:</b> 4
<b>Phone:</b>	<b>Date:</b> November 27, 2002
<b>Re:</b> Spiller Market Centre	<b>CC:</b>

☐ Urgent    ☐ For Review    ☐ Please Comment    ☐ Please Reply    ☐ Please Recycle

• **Comments:**

**Rent Roll**  
**SPILLER - Spiller Market Centre**  
**From 10/28/02**

11/27/2004  
10:58 AM

Unit	Unit Type	Tenant Code	Tenant Name	Unit Sqft	Market Rent	Actual Rent	Deposit	Move-In	Past Due	NSF	Late
1480	Retail	BUFF	BUFFALO PHIL'S	1,800.0	1,950.00	1,950.00	0.00	02/10/95	14,550.01	3	
1490	Retail	NORWES	NORWEST FINANCIAL	1,800.0	2,025.00	2,025.00	0.00	11/01/94	72.32	0	
1500	Retail	WD530	WINN-DIXIE STORES, INC.	44,938.0	25,116.87	25,116.87	0.00	09/29/94	0.00	0	
1510	Retail	SALON	SALON STUDIOS	1,500.0	1,625.00	1,625.00	0.00	11/01/94	-0.21	0	
1515	Retail	MAIL	MAILBOX EXPRESS, ETC.	1,452.0	1,452.00	1,452.00	0.00	08/18/95	0.00	0	
1516	Retail	MATTRESS	MATTRESS MAX	2,548.0	2,387.87	2,387.87	0.00	11/01/87	6,929.50	3	
1520	Retail	BLKBST	DMK ENTERTAINMENT, INC	6,000.0	6,250.00	6,250.00	0.00	01/21/97	0.00	0	
<hr/>				<hr/>							
7			Total	60,036.0	40,806.34	40,806.34	0.00		21,551.62	6	
7			Total Occupied	60,036	40,806.34	40,806.34					
100.00			% Occupied	100.00	100.00	100.00					
0			Total Vacant	0	0.00						
0.00			% Vacant	0.00	0.00						

**Rent Roll**  
**Spiller Market Centre (SPILLER)**

Page 1  
11/27/2002  
10:56 AM

Property	Unit	Code	Name	Sq.Ft.	Rent Potential	Rent Actual	Rent/sq	Deposit	Lease From	Leased To
SPILLER	1480	BUFF	BUFFALO PHIL'S	1,800	1,950.00	1,950.00	13.00	0.00	02/10/95	02/10/00
SPILLER	1490	NORWES	NORWEST FINANCIAL	1,800	2,025.00	2,025.00	13.50	0.00	11/01/94	01/31/05
SPILLER	1500	WD530	WINN-DIXIE STORES, INC.	44,936	25,116.67	25,116.67	6.71	0.00	09/29/94	09/29/14
SPILLER	1510	SALON	SALON STUDIOS	1,500	1,625.00	1,625.00	13.00	0.00	11/01/94	12/31/04
SPILLER	1515	MAIL	MAILBOX EXPRESS, ETC.	1,452	1,452.00	1,452.00	12.00	0.00	10/01/95	10/31/05
SPILLER	1516	MATTRESS	MATTRESS MAX	2,548	2,387.67	2,387.67	11.25	0.00	11/01/97	06/30/06
SPILLER	1520	BLKBST	DMK ENTERTAINMENT, INC	6,000	6,250.00	6,250.00	12.50	0.00	02/01/97	01/31/07
	7		Total	60,036	40,806.34	40,806.34	8.16	0.00		
	7		Total Occupied	60,036	40,806.34	40,806.34	8.16			
	100.00		% Occupied	100.00	100.00	100.00				
	0		Total Vacant	0	0.00					
	0.00		% Vacant	0.00	0.00					

# Tenant Directory

## SPILLER - Spiller Market Centre

Page 1  
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10:58 AM

Unit # Code Status	Tenant Name Tenant Address	Total Owe 0 - 30 30 - 60 60 - 90	Rent New Rent Late Fee \$/Day	Deposit Interest Last Month Due Day	Move in Move Out Lease To Paid To	Last Inc Next Inc	Sq. Ft. \$/ Sq Ft % Sq Ft	Telephone (O/H) Notes
SPILLER	Spiller Market Centre							
1480	BUFFALO PHIL'S	14,550.01	1,950.00	0.00	02/10/95	02/01/00	1,800.0 (205) 758-4344 / (205) 556-8238	
BUFF	c/o Dinah Walton	0.00	2,046.43	0.0		02/01/05	13.00 Option 3:	
Current	6221 Woodland Forest Dr. Tuscaloosa, AL 35405	2,100.00 2,100.00	5.00% 0.00	0.00 1	02/10/00		2.9982 Renewal of \$2,250/monthly Notice Date: 10/10/2009	
1490	NORWEST FINANCIAL	72.32	2,025.00	0.00	11/01/94	02/01/02	1,800.0 (515) 243-2131 /	
NORWES	Attention: Jlm Gruber	0.00	0.00	0.0			13.50	
Current	206 Eighth Street Des Moines, IO 50309	72.32 0.00	0.00% 0.00	0.00 1	01/31/05		2.9982	
1500	WINN-DIXIE STORES, INC.	0.00	25,116.67	0.00	09/29/94	09/29/94	44,936.0 (904) 783-5000 /	
WD530	Re: Skyland Blvd., #1500	0.00	0.00	0.0			6.71	
Current	5050 Edgewood Court Jacksonville, FL 32205	0.00 0.00	0.00% 0.00	0.00 1	09/29/14		74.8484	
1510	SALON STUDIOS	-0.21	1,825.00	0.00	11/01/94	01/01/00	1,500.0 (205) 758-7888 / (205) 348-8223	
SALON	c/o William D. Coons, CPA	0.00	0.00	0.0			13.00 Remits Monthly Rent Payments	
Current	POB 1536 Tuscaloosa, AL 35403	0.00 0.00	0.00% 0.00	0.00 1	12/31/04		2.4985 for Owner of Salon Studios	
1515	MAILBOX EXPRESS, ETC.	0.00	1,452.00	0.00	08/18/95	10/01/02	1,452.0 (205) 345-5345 / (205) 554-5206	
MAIL	c/o Johnny Meadows	0.00	1,812.50	0.0		11/01/05	12.00 Option 1: 11/1/05 to 12/31/05 free	
Current	1206 Indian Hills Road Tuscaloosa, AL 35406	0.00 0.00	0.00% 0.00	0.00 0	10/31/05		2.4185 rent, then \$1,812.50/mo. through	
1516	MATTRESS MAX	6,929.50	2,387.67	0.00	11/01/97	07/01/01	2,548.0 (205) 344-8233 / (205) 853-6252	
MATTRES	c/o Garek Sechrist	0.00	0.00	0.0			11.24 Owner	
Current	201 Sun Valley Road Birmingham, AL 35215	2,706.17 2,706.17	0.00% 0.00	0.00 1	06/30/06		4.2441 Co-Owner is Wayne Freeman	
1520	DMK ENTERTAINMENT, INC	0.00	8,250.00	0.00	01/21/97	02/01/00	6,000.0 (205) 991-9901 / (205) 991-9987	
BLKBST	399 Cahaba Park Cir Ste 132	0.00	8,750.00	0.0		02/01/04	12.50	
Current	P. O. BOX 43949 Birmingham, AL 35243	0.00 0.00	0.00% 0.00	0.00 1	01/31/07		8.994	
		21,551.62	40,806.34	0.00			60,036.00	
		0.00	10,608.93	0.00			81.95	
		4,878.49		0.00				
		4,806.17						



# GEOTECHNICAL REPORT

WINN-DIXIE SITE

SPILLER MARKET CENTRE

TUSCALOOSA, ALABAMA

THE GEOTECHNICAL ENGINEERING

AND CONSTRUCTION COMPANY

INCORPORATED

REFERENCE 14

TTL, Inc.

ADVANCING THE GEO SCIENCES

**TTL, Inc.**

**PRACTICING IN THE GEOSCIENCES**

3516 Greensboro Avenue • P.O. Drawer 1128 • Tuscaloosa, Alabama 35403 • Telephone 205-345-0816 • FAX 205-345-0992

April 9, 1993

NOV 2002  
RECEIVED  
LAND DIVISION

Mr. Charlie Trotman  
The Trotman Company, Inc.  
2800 Zelda Road, Suite 200-3  
Montgomery, Alabama 36106

Re: Geotechnical Report  
Winn-Dixie Site  
Spiller Market Centre  
Tuscaloosa, Alabama

Dear Mr. Trotman:

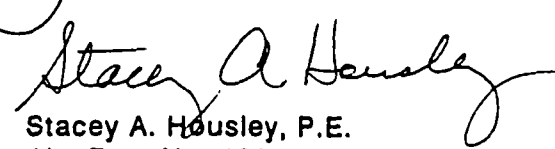
TTL has completed the subsurface exploration for the proposed Winn-Dixie grocery store to be located in an area that will become the Spiller Market Centre in Tuscaloosa, Alabama. Services performed as part of this exploration include:

1. Examination of the proposed site and study of available subsurface data.
2. Sampling and testing of subsurface strata to determine the potential of foundation bearing material.
3. Recommendations concerning general construction considerations pertinent to the successful long term performance of the foundations and earthwork.
4. Summarization of design precautions to be considered during the engineering application of this soil investigation.

We at TTL are glad to have been able to do the soil exploration for this project and hope that we can be of help when you need other geotechnical engineering services.

Sincerely,  
TTL, Inc.

  
John J. Harvey, E.I.T.  
Ala. Reg. No. 7600

  
Stacey A. Housley, P.E.  
Ala. Reg. No. 19339

JJH/db  
Enclosures

# **GEOTECHNICAL REPORT**

**WINN-DIXIE SITE  
SPILLER MARKET CENTRE  
TUSCALOOSA, ALABAMA**

**submitted to  
THE TROTMAN COMPANY, INC.**

**April 9, 1993**

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## DESCRIPTION OF THE PROJECT

This report represents the geotechnical data obtained from a subsurface exploration conducted by TTL at the site of the proposed Winn Dixie Grocery Store to be located in Tuscaloosa, Alabama. The proposed site is located in an area northeast of the intersection of Skyland Boulevard West and Andrew Street as shown on the Topographic Location Map. Presently, Spiller Furniture Warehouse is located on the eastern portion of the site. Plans indicate that the existing single-story brick building will be razed to accommodate the Winn Dixie Store and other related buildings.

The proposed project consists of a steel-framed, slab-on-grade structure that will house the grocery store and smaller specialty stores to be located in areas east and southeast of the building adjacent to the grocery store. Parking will be located south of the grocery store.

Surface water across the site generally drains to the south to southwest. Some surface water on the eastern portion of the site flows into a basin that traverses the eastern edge of the site and drains toward Skyland Boulevard. The majority of the site slopes moderately to the southwest.

## FIELD AND LABORATORY OPERATIONS

On April 2, 1993, 12 soil auger borings were made at the locations shown on the Boring Location Schematic included in this report. *The borings were field-located by TTL personnel using taped distances and estimated angles from features having known locations on the site, and should therefore be considered to be approximate.* These borings, ranging from 6 to 21 feet in depth, were made with a mechanically-driven, continuous-flight, hollow-stem auger. Concurrent with each boring, standard penetration resistance tests were performed according to ASTM D 1586 continuously through the first 6 feet, then at 2½ foot intervals to boring termination. After the penetration values were recorded, soil samples were

taken from the splitspoon. These samples were field classified and moved to our laboratory for further testing.

Laboratory work included grain-size analysis, moisture content determination, Atterberg limits determination and Unified Classification of selected samples. Results of these tests are summarized in the subsurface conditions section while the complete set of data is shown on the boring logs and data sheets at the end of this report.

## **SUBSURFACE CONDITIONS**

### **Area Geology**

Tuscaloosa County is situated near the approximate contact of the Cumberland Plateau section of the Appalachian Plateau and the East Gulf Coastal Plain section of the Gulf Coastal Plain physiographic provinces. The plateau region in this part of Alabama is identified more specifically as the Black Warrior Basin, a structural depression covering a 15 county area in northwest Alabama and northeast Mississippi. Rocks in the basin are Pennsylvanian in age and consist of shales, sandstones, conglomerates and coal seams. Surface weathering of these strata, assigned to the Pottsville Formation, produces rugged topography with poor soils. The sandstones represent sediments deposited by streams flowing across a vast deltaic-fluviatile plain during Pennsylvanian time. The shales result from clay-size particles deposited between tributary channels of low-energy streams crossing this swampy, low region which extends from western Pennsylvania into west-central Alabama.

The southern extent of the normal outcrop of the Pottsville strata is obscured by overlap of much younger sediments of the Gulf Coastal Plain. Sediments along the northern edge of the coastal plain, referred to as the Fall Line Hills, consist largely of unconsolidated sands, clays and gravels of the Tuscaloosa Formation (Late Cretaceous in age), and elevated river terraces of Pleistocene and Holocene Ages. The coastal plain strata dip gently toward the Gulf of Mexico at 35 to 50 feet per mile.

### **Site Specific Conditions**

The site is underlain by several soil strata. The borings encountered layers of topsoil, sandy clays, clayey sands, clayey silty sands and silty sands with gravel. These soils range from soft to very stiff in consistency for cohesive soils, from loose to very dense in relative density for non-cohesive soils, and are red, tan, brown and white in color. Soil moistures varied between 3 and 20 percent in our samples. Standard penetration resistance values range from 4 to 59 blows per foot and are shown graphically on the boring logs. The liquid limits and the plasticity indices for the four samples tested ranged from 37 to 22 percent and from 17 to 5, respectively.

The general conditions discussed in the previous paragraphs represent an estimate of the subsurface conditions based on interpretation of the boring data using normally accepted geotechnical engineering judgements. More detailed descriptions of the subsurface conditions encountered at each boring location are presented on the soil boring logs included in this report. Although individual test borings are representative of the subsurface conditions at the precise boring locations on the dates shown, they are not necessarily indicative of the subsurface conditions at other locations or at other times.

### **GENERAL RECOMMENDATIONS AND CONSTRUCTION CONSIDERATIONS**

Based on the data from the soil auger borings, laboratory analyses, inspection of the construction site, our familiarity with these soil conditions, and the design criteria of the proposed facilities, the following conclusions are presented.

### **Grading**

The proposed finished floor elevation for the building is 292 feet TBM. The existing finished floor elevation of the Spiller building is 298 feet TBM, thus requiring approximately 6 to 8 feet of undercutting across some portions of the site. Deeper excavations may be

required on the south end of the property. No old foundations were encountered during drilling operations; however, it is possible that such subsurface structures may exist across the site after the existing building is removed. **All old foundations, pavements, concrete, steel, vegetative debris, fence lines, topsoil and other debris must be removed from the proposed construction area.** Numerous underground utilities are located across the site. If these utilities are relocated, abandoned lines must be removed from areas **supporting structures or receiving structural fill.**

The entire project area including building and parking areas should be proof-rolled with a partially-loaded dump truck after site clearing operations have been completed. Soft "pockets" or areas that "pump" should be excavated and backfilled with a satisfactory, compacted structural fill material. *Due to the noncohesive nature of the clayey silty sands prevalent across the site, erosion control measures must be instituted to protect the soil from adverse weather conditions during site work and construction operations.*

TTL was not able to perform soil boring operations in all cut areas because of the existing Spiller Store. In the areas that were accessible several borings encountered isolated seams of ironstone. Because cemented sand and ironstone layers are common in the project area, some seams may become exposed during sitework operations. Thickness and consistency of these layers varies but they generally may be ripped using conventional track mounted equipment. A rubber tired backhoe may experience difficulty in excavating utility ditches through these zones thus requiring a track mounted backhoe.

Boring Nos. 10, 11 and 12 were performed in proposed sloped areas north and east of the proposed building sites. Boring Nos. 10 and 11, located *north of the proposed grocery store building*, encountered loose to firm clayey silty sands which would not be supportive of a steep slope. A maximum slope of 2 (H) to 1 (V) may be utilized if the embankment is structurally unsupported. A slope of 1 to 1 may be utilized if the embankment is stabilized using slope protection, details of which are discussed in the Slope Paving section of this report.

Boring No. 12 was performed near an existing embankment *east of the proposed retail stores*. This boring indicates firm to very stiff sandy clay to 14 feet below the ground surface. Exposed soils along the existing embankment indicate the same type of soil. Based on TTL's observations, these soils are sufficient to support a 2 (H) to 1 (V) slope. **Care must be taken to insure the integrity of this embankment after construction by landscaping or other means of erosion control.**

Final subgrade foundation elevation may require structural filling of low areas with satisfactory materials from designated borrow pits. During construction, all soils should be classified, using the Unified Soil Classification System. Satisfactory fill materials include clayey silty sands, clayey sands or sandy clays that classify as SM-SC, SC or CL which have a plasticity index between 5 and 15.

The surface receiving fill must be scarified to a depth of 6 inches before the fill is started. Sloped surfaces steeper than 1 vertical to 4 horizontal must be plowed, stepped, benched, or broken up so that the fill material will bond with the existing stratum. Satisfactory fill material must be placed in horizontal layers not exceeding 8 inches in loose depth and then compacted to the density specified. No material should be placed on surfaces that are muddy, frozen or that contain frost.

Compaction may be accomplished by sheepfoot rollers, pneumatic-tired rollers, steel-wheeled rollers or other approved equipment well-suited to the soil being compacted. Materials should be moistened or aerated, as necessary, to provide a moisture content that will readily facilitate obtaining the specified compaction with the equipment used. Water content should be maintained within a range of +/- 3 percent of optimum, as determined by ASTM D 698. Each layer should be compacted to not less than the percentage of maximum density specified below.

**PERCENT OF  
MAXIMUM DRY DENSITY  
Based on Standard Proctor Density, (ASTM D 698)**

**Subgrade fill, embank-  
ment, and backfill under  
construction area**

**98**

Perched groundwater was not encountered during our field exploration; however, conditions will fluctuate with seasonal and climatic variations. Consequently, groundwater conditions at the time of construction may be different from those encountered at the time of the field exploration. Typical mass excavation equipment, such as earth movers or track-mounted front end loaders, may not be able to operate on saturated soil strata or in areas of perched groundwater that might be present. **Site excavation operations should be performed in such a manner as to provide positive surface drainage away from the site.** We also recommend that the finished construction include provisions for diverting roof drainage away from the building proper.

**Foundations**

The proposed structures should utilize a foundation system founded on undisturbed soil or satisfactory, compacted structural fill bearing at least 30 inches below finished floor elevation. **A minimum of 18 inches of soil cover must be provided for exterior footings. Placement of concrete or similar surfaces which prevent erosion and infiltration of water are acceptable alternatives.** Strip footings may be designed for an allowable safe bearing capacity of 3,000 psf, based on total load, and must have a minimum width of 18 inches. Individual column footings may be designed for an allowable safe bearing capacity of 3,000 psf, based on total load, and must have a minimum width of 24 inches. Non load-bearing internal grade beams or thickenings of the slab should be founded on undisturbed soil or satisfactorily compacted structural fill with the bearing surface at least 12 inches below

finish floor elevation. These internal grade beams may be designed for an allowable safe bearing capacity of 2,500 psf, based on total load, and must have a minimum width of 12 inches.

Floor slabs must be reinforced to control cracking due to differential movements and thermal stresses. Floor slabs on grade should be placed on a compacted uniform blanket (minimum of 4 inches) of crushed stone to provide drainage and stability. This blanket of material should consist of clean crushed stone. The maximum particle size should be 1½ inches, and not more than 5 percent, by weight, should pass the No. 8 sieve.

Field density tests and penetrometer tests should be performed in the foundation excavations, footing trenches and on the slab subgrade after final grading operations are completed. Any localized soft zones encountered must be excavated and the cavity backfilled with a compacted material according to recommendations of a qualified geotechnical engineer. *The integrity of the subgrade soils across the site may be adversely affected by weather conditions and/or construction traffic if there is a delay in the start of construction after grading operations have been completed.* **The subgrade soils in the building pad area must meet the specifications set forth in this report immediately prior to the construction of floor slabs.**

During construction, care must be taken to insure that water does not collect on the site. If construction proceeds during the wetter months, it may be necessary to divert surface water from the building pad. The building pad must be constructed so that rainwater drains away from the footing trenches. While these trenches are open, protective measures must be instituted to shield the bearing surface from any inclement weather. The saturation of any clayey or silty soils at the footing bearing level will reduce their cohesive strength and load-carrying ability. **If a delay in concrete placement is expected, TTL's geotechnical engineer will require a 2-inch "working slab" to be poured in the footings and excavated trenches as soon as they are completed. This will protect the bearing soils**

from drying or from inclement weather and will provide a clean working surface for reinforcement placement. Before concrete placement, we recommend that the exposed soils in the footing bottoms be retamped with an appropriate compactor to densify any loosened material at the bearing level.

Finished construction should include provisions for diverting roof drainage away from the building proper. Additionally, finished grade design and drainage control structures such as drainage ditches, underdrains, and pavements adjoining the building perimeter should be utilized to prevent water from ponding in areas adjacent to the structure.

### **Slope Paving**

The limited area north of the grocery store building will require a slope steeper than the maximum 2 (H) to 1 (V) slope, that the soil will safely withstand longterm unsupported, thus it is essential to institute some means of slope protection. Slope paving is a viable means of protecting the slope while increasing the steepness of the slope.

In utilizing slope paving, the slope should not be steeper than 1 to 1. A concrete thickness of 6 inches should be sufficient to provide stability to the slope. It will be necessary to provide adequate drainage of the slope by means of weep holes and/or longitudinal drains. Design of relief drainage systems, reinforcement steel and crack control joints is the responsibility of the structural engineer.

### **Pavement Subgrade**

The final graded soils across the site under the proposed paved areas should provide a satisfactory pavement subgrade after requirements of the grading section of this report are completed. It is possible that certain areas will contain soft unsatisfactory subgrade soil material. These areas should be located and removed. We suggest proof-rolling the site after the undercutting is completed to find soft zones as recommended in the Grading section.

### **Pavement Design**

Based on anticipated loads of automobiles, light duty delivery vehicles and multi-axle trucks, TTL recommends the following typical pavement section. The design section is within the guidelines recommended by the Asphalt Institute and believed to be an economical design commensurate with approved construction criteria.

#### **Reference:**

1. Asphalt Institute Thickness Design Manual Series I (MS-1) 8th Edition (1984).
2. Alabama Highway Department Standard Specification (1992).

### **Typical Flexible Pavement Section** (Light Duty Areas)

Subgrade (Natural or Filled, Compacted to 98% T 99) .....	as required on plans
Soil Aggregate Base (AHD Section 823, Type "A", Compacted to 100% T 99) .....	8.00 inches
Prime Coat (AHD Section 401, Ref. 3) .....	.22 - .25 gal./sq.yd.
Plant Mix Bituminous Lower Layer (AHD No. 416, Mix 1) .... (138 lb/sq.yd) .....	1.25 inches
Tack Coat (AHD No. 405) .....	.05 - .1 gal./sq.yd.
Plant Mix Bituminous Surface Layer (AHD No. 416, Mix 1) .... (138 lb/sq.yd) .....	1.25 inches

### **Typical Rigid Pavement Section** (Heavy Duty Areas)

Subgrade (Natural or Filled, Compacted to 98% T 99) .....	as required
Soil Aggregate Base (AHD Section 825, Type "B" Compacted to 100% T99) .....	6 inch
Reinforced Concrete Wearing Layer (4,000 psi, Portland Type I) .....	6 inch

**Design of reinforcement steel and crack control joints is the responsibility of the structural engineer.**

It will be necessary to provide good drainage for the soil aggregate base. **Drainage paths, such as an underdrain system behind the concrete curbs surrounding the parking area, will be necessary adjacent to deeper cut areas and if a lawn sprinkling system is installed.** This should keep the subgrade and base layers near optimum moisture content.

### **Utilities**

Perched groundwater was not encountered in our borings; however, during the wetter months, sloughing may occur in unsupported cuts through the clayey sands and clayey silty sands found in the upper strata. Backfilling of all utility ditches should meet the minimum compaction requirements outlined in the grading section of this report.

### **Performance Test**

Additional geotechnical engineering, testing, and consulting services recommended for this project during the construction phase are summarized below:

1. **SITE PREPARATION:** TTL's geotechnical engineer, in conjunction with the inspector, should determine whether or not a subgrade is suitable for fill placement and make remedial recommendations, if required, to prepare a subgrade for fill placement.
2. **FILL PLACEMENT AND COMPACTION:** TTL's soils engineering technician should periodically witness the filling operations and take sufficient in-place density tests to verify that the specified fill compaction is achieved. He, in conjunction with TTL's geotechnical engineer, should observe and approve borrow materials used and determine if their existing moisture contents are suitable. As a minimum, we recommend that one compaction test be performed for every 1,000 square yards of area for one foot of vertical lift of soil. This requirement applies to all areas receiving fill.

3. **FOOTING OBSERVATION:** Field penetrometer tests should be performed by TTL's geotechnical engineer in the footing excavations after final grading operations are complete. Any localized soft zones encountered at the footing bottoms must be excavated and the cavity backfilled with granular material compacted to the minimum requirements (ASTM D 698) selected by TTL's geotechnical engineer.

### **LIMITATIONS AND RESTRICTIONS**

The analyses and recommendations submitted in this report are based upon the data obtained from the 12 soil borings drilled at the locations shown on the boring location schematic. This report does not reflect any variations which may occur away from these borings. The nature and extent of variations may not become evident until construction has begun. If variations are then evident, it will be necessary for us to re-evaluate the recommendations of this report after we have conducted further study of the situation.

We have prepared this report for the use of The Trotman Company, Inc. for their purposes, in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made concerning the professional advice included in this report.

This report has not been prepared for use by parties other than those named or for uses other than those described above. It may not contain sufficient information for purposes of other parties or other uses.

JJH/SAH/db

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# IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL ENGINEERING REPORT

More construction problems are caused by site subsurface conditions than any other factor. As troublesome as subsurface problems can be, their frequency and extent have been lessened considerably in recent years, due in large measure to programs and publications of ASFE/The Association of Engineering Firms Practicing in the Geosciences.

The following suggestions and observations are offered to help you reduce the geotechnical-related delays, cost-overruns and other costly headaches that can occur during a construction project.

## A GEOTECHNICAL ENGINEERING REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

A geotechnical engineering report is based on a subsurface exploration plan designed to incorporate a unique set of project-specific factors. These typically include: the general nature of the structure involved, its size and configuration; the location of the structure on the site and its orientation; physical concomitants such as access roads, parking lots, and underground utilities, and the level of additional risk which the client assumed by virtue of limitations imposed upon the exploratory program. To help avoid costly problems, consult the geotechnical engineer to determine how any factors which change subsequent to the date of the report may affect its recommendations.

Unless your consulting geotechnical engineer indicates otherwise, *your geotechnical engineering report should not be used:*

- When the nature of the proposed structure is changed, for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one;
- when the size or configuration of the proposed structure is altered;
- when the location or orientation of the proposed structure is modified;
- when there is a change of ownership, or
- for application to an adjacent site.

*Geotechnical engineers cannot accept responsibility for problems which may develop if they are not consulted after factors considered in their report's development have changed.*

## MOST GEOTECHNICAL "FINDINGS" ARE PROFESSIONAL ESTIMATES

Site exploration identifies actual subsurface conditions only at those points where samples are taken, when they are taken. Data derived through sampling and subsequent laboratory testing are extrapolated by geo-

technical engineers who then render an opinion about overall subsurface conditions, their likely reaction to proposed construction activity, and appropriate foundation design. Even under optimal circumstances actual conditions may differ from those inferred to exist, because no geotechnical engineer, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than a report indicates. Actual conditions in areas not sampled may differ from predictions. *Nothing can be done to prevent the unanticipated, but steps can be taken to help minimize their impact.* For this reason, most experienced owners retain their geotechnical consultants through the construction stage, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

## SUBSURFACE CONDITIONS CAN CHANGE

Subsurface conditions may be modified by constantly-changing natural forces. Because a geotechnical engineering report is based on conditions which existed at the time of subsurface exploration, *construction decisions should not be based on a geotechnical engineering report whose adequacy may have been affected by time.* Speak with the geotechnical consultant to learn if additional tests are advisable before construction starts.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes or ground-water fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical report. The geotechnical engineer should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

## GEOTECHNICAL SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND PERSONS

Geotechnical engineers' reports are prepared to meet the specific needs of specific individuals. A report prepared for a consulting civil engineer may not be adequate for a construction contractor, or even some other consulting civil engineer. Unless indicated otherwise, this report was prepared expressly for the client involved and expressly for purposes indicated by the client. Use by any other persons for any purpose, or by the client for a different purpose, may result in problems. *No individual other than the client should apply this report for its intended purpose without first conferring with the geotechnical engineer. No person should apply this report for any purpose other than that originally contemplated without first conferring with the geotechnical engineer.*

## A GEOTECHNICAL ENGINEERING REPORT IS SUBJECT TO MISINTERPRETATION

Costly problems can occur when other design professionals develop their plans based on misinterpretations of a geotechnical engineering report. To help avoid these problems, the geotechnical engineer should be retained to work with other appropriate design professionals to explain relevant geotechnical findings and to review the adequacy of their plans and specifications relative to geotechnical issues.

## BORING LOGS SHOULD NOT BE SEPARATED FROM THE ENGINEERING REPORT

Final boring logs are developed by geotechnical engineers based upon their interpretation of field logs (assembled by site personnel) and laboratory evaluation of field samples. Only final boring logs customarily are included in geotechnical engineering reports. *These logs should not under any circumstances be redrawn* for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process. Although photographic reproduction eliminates this problem, it does nothing to minimize the possibility of contractors misinterpreting the logs during bid preparation. When this occurs, delays, disputes and unanticipated costs are the all-too-frequent result.

To minimize the likelihood of boring log misinterpretation, *give contractors ready access to the complete geotechnical engineering report* prepared or authorized for their use. Those who do not provide such access may proceed un-

der the *mistaken* impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes which aggravate them to disproportionate scale.

## READ RESPONSIBILITY CLAUSES CLOSELY

Because geotechnical engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against geotechnical consultants. To help prevent this problem, geotechnical engineers have developed model clauses for use in written transmittals. These are *not* exculpatory clauses designed to foist geotechnical engineers' liabilities onto someone else. Rather, they are definitive clauses which identify where geotechnical engineers' responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your geotechnical engineering report, and you are encouraged to read them closely. Your geotechnical engineer will be pleased to give full and frank answers to your questions.

## OTHER STEPS YOU CAN TAKE TO REDUCE RISK

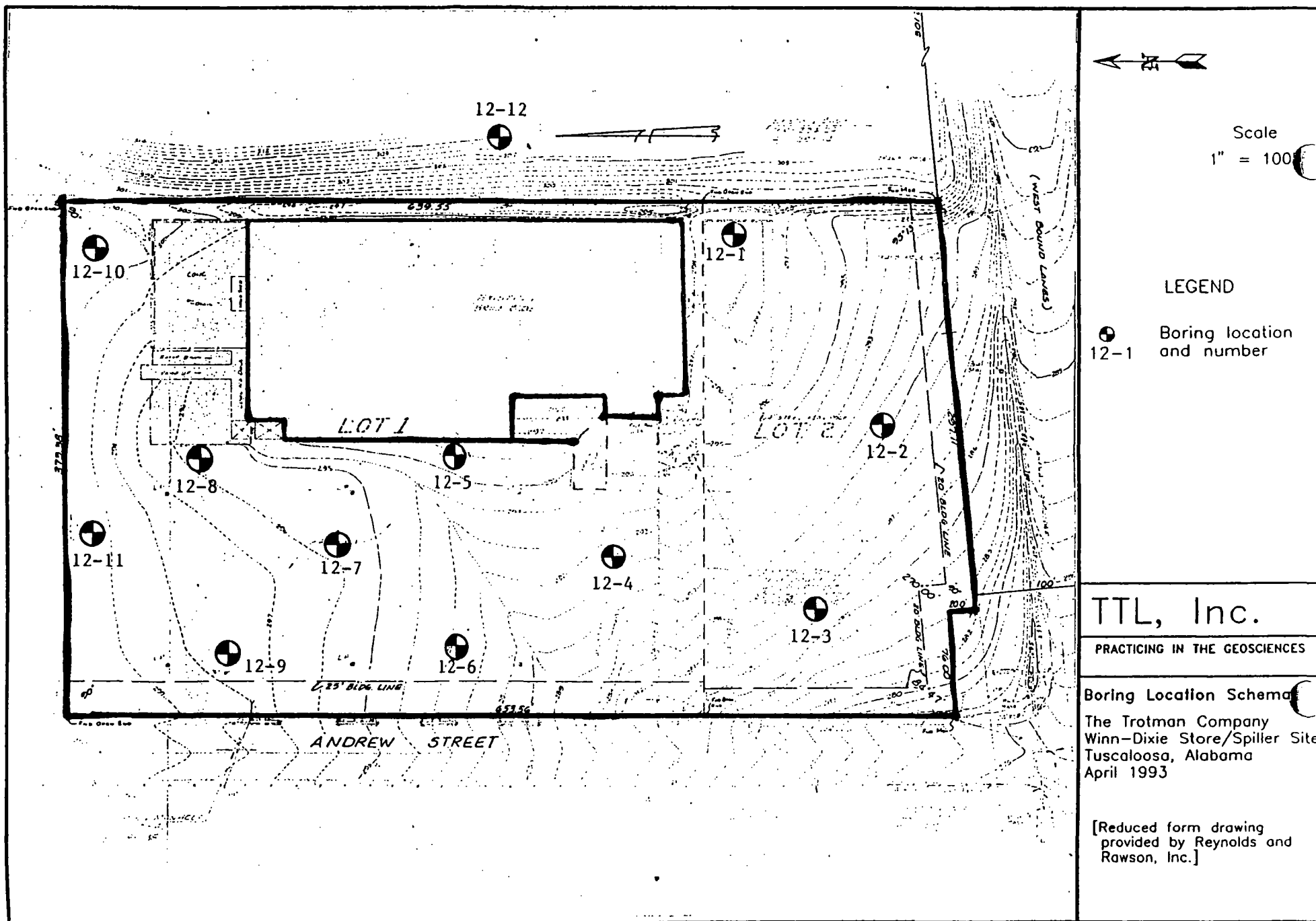
Your consulting geotechnical engineer will be pleased to discuss other techniques which can be employed to mitigate risk. In addition, ASFE has developed a variety of materials which may be beneficial. Contact ASFE for a complimentary copy of its publications directory.

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OF ENGINEERING FIRMS  
PRACTICING IN THE GEOSCIENCES

8811 Colesville Road/Suite G106/Silver Spring, Maryland 20910/(301) 565-2733





# **BORING LOGS**

## LEGEND

GW		Well-graded gravels or gravel-sand mixtures, little or no fines.	MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
GP		Poorly-graded gravels or gravel-sand mixtures, little or no fines.	OL		Organic silts and sands and organic silt-clays of low plasticity.
GM		Silty gravels, gravel-sand-silt mixtures.	OH		Organic clays of medium to high plasticity, organic elastic silts.
GC		Clayey gravels, gravel-sand-clay.	PT		Peat and other highly organic soils.
SW		Well-graded sands or gravelly sands, little or no fines.			Quartzite
SP		Poorly-graded sands or gravelly sands, little or no fines.			Sandstone
SM		Silty sands, sand-silt mixtures.			Siltstone
SC		Clayey sands, sand-clay mixtures.			Shale
CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.			Schist
CH		Inorganic clays of high plasticity, fat clays.			Limestone
ML		Inorganic sandy or clayey silts with slight plasticity, rock flour.			Dolomite

**GENERAL NOTES:**

Boring logs shown on the following sheets shall not be copied or altered.

Groundwater depths shown on the boring logs represent groundwater surfaces encountered on the dates shown. The absence of water surface data on certain borings implies that no groundwater data is available, but does not necessarily mean that groundwater will not be encountered at the locations or within the vertical reaches of these borings.

While the borings are representative of subsurface conditions at their respective locations and for their respective vertical reaches, local minor variations in characteristics of the subsurface materials of the region are anticipated and, if encountered, such variations will not be considered as differing materially from the description shown with the logs or profiles.

Soils are classified in accordance with the Unified Soil Classification System, ASTM D 2487, for civil projects and Military Standard 619B dated 12 June 1968, for military projects.

Standard penetration is shown graphically. The blows per foot are determined by driving a standard split spoon sample (1 3/8" ID, 2" OD) with a 140 pound driving hammer dropping 30 inches (ASTM D 1586) unless otherwise noted on the boring logs.

**SPECIAL NOTE:**

Water table shown is an approximation of the water elevation on the date shown. The water elevation may vary and may reach ground surface. Seepage above the water table can be expected at any time. Any conclusions drawn by the Contractor shall be the Contractor's sole responsibility.

## DESCRIPTIVE TERMINOLOGY INCLUDED ON BORING LOGS

### MOISTURE CONDITIONS

<u>Fine-Grained Soils</u>		<u>Coarse-Grained Soils</u>
Dry	Seems dry, but contains some moisture	Contains no noticeable moisture
Moist	Moisture below the plastic limit	Contains a noticeable amount of moisture, but no appreciable free water
Very Moist	Moisture above the plastic, but below the liquid limit	
Wet	Moisture may approach the liquid limit	Contains free water, but voids are not waterfilled
Saturated	Moisture is frequently at or above the liquid limit	Soils voids are waterfilled or or nearly so

### STANDARD PENETRATION RESISTANCE (N)<sup>1</sup>

<u>Sands</u> <u>(Cohesionless Soils)</u>		<u>Silts and Clays</u> <u>(Cohesive Soils)</u>	
<u># of Blows, N</u>	<u>Relative Density</u>	<u># of Blows, N</u>	<u>Relative Consistency</u>
0 - 4	Very Loose	0 - 1	Very Soft
5 - 10	Loose	2 - 4	Soft
11 - 30	Firm (Medium)	5 - 8	Firm (Medium)
31 - 50	Dense	9 - 15	Stiff
Over 50	Very Dense	31 - 50	Hard
		Over 50	Very Hard






<sup>1</sup>Measured with 2 inch OD, 1 3/8 inch ID sampler driven 1 foot by 140 lb. hammer falling 30 inches. See Standard Methods for Penetration Test and Split-Barrel Sampling of Soils, ASTM D 1586.

### RELATIVE PROPORTIONS

<u>Term</u>	<u>Range</u>
Trace	Less than 10%
Little	10% - 20%
Some	20% - 30%
With	30% - 40%
And	40% - 50%

TTL, Inc. PRACTICING IN THE GEOSCIENCES			THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		LOG OF BORING 12-1 Page 1 of 1	
GEO/ENG: JOHN J. HARVEY			LOCATION: TUSCALOOSA, ALABAMA		DATE DRILLED: 4-3-93	
DRILL AGENCY: TTL, INC.			BORING COORDINATES: MAP		BORING DEPTH: 11.0 Feet	
DRILLER: KEN PATE & CREW			ELEVATION: 297 +/- FEET *		WATER LEVEL: NOT ENCOUNTERED	
DRILLING METHOD: 7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)					NO. OF SAMPLES: 6	

DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)			
					10	20	30	40
5		SC	1" ASPHALT					
			REDDISH TAN CLAYEY SAND W/GRAVEL					
			RED CLAYEY SAND					
			SOFT, MOIST					
			FIRM, MOIST					
10		SC	RED CLAYEY SAND W/TRACE GRAVEL	19				
			FIRM, MOIST	17				
			STIFF, MOIST	18				
15		SC	RED CLAYEY SAND W/IRONSTONE LAYERS	18				
			STIFF, MOIST	16				
20		SC	BORING TERMINATED AT 11.0 FEET	13				
25		SC	* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.	10				

TTL, Inc

<b>TTL, Inc.</b> PRACTICING IN THE GEOSCIENCES		THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		<b>LOG OF BORING 12-2</b> Page 1 of 1	
GEO/ENG: JOHN J. HARVEY		LOCATION: TUSCALOOSA, ALABAMA		DATE DRILLED: 4-2-93	
DRILL AGENCY: TTL, INC.		BORING COORDINATES: MAP		BORING DEPTH: 16.0 Feet	
DRILLER: KEN PATE & CREW		ELEVATION: 290 +/- FEET *		WATER LEVEL: NOT ENCOUNTERED	
DRILLING METHOD: 7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)				NO. OF SAMPLES: 8	

DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)				
					10	20	30	40	
	[Pattern: Horizontal Lines]	OL	BROWN CLAYEY SAND W/ORGANICS						
	[Pattern: Diagonal Lines]	SC	RED CLAYEY SAND FIRM, MOIST	15					
	[Pattern: Diagonal Lines]		RED AND TAN CLAYEY SAND W/TRACE GRAVEL FIRM, MOIST	16					
	[Pattern: Diagonal Lines]		RED AND TAN CLAYEY SAND VERY STIFF, MOIST	16					
5	[Pattern: Dotted]	SM-SC	DARK BROWN CLAYEY SILTY SAND W/IRONSTONE LAYERS FIRM, MOIST	11					
	[Pattern: Dotted]		REDDISH TAN CLAYEY SILTY SAND LOOSE, MOIST	8					
10	[Pattern: Dotted]			8					
	[Pattern: Dotted]		REDDISH TAN, RED AND WHITE CLAYEY SILTY SAND FIRM, MOIST	11					
15	[Pattern: Dotted]			13					
			BORING TERMINATED AT 16.0 FEET						
			* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.						
20									
25									

TTL, Inc

<b>TTL, Inc.</b> PRACTICING IN THE GEOSCIENCES		THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		<b>LOG OF BORING 12-3</b> Page 1 of 1	
GEO/ENG: <i>JOHN J. HARVEY</i>		LOCATION: <i>TUSCALOOSA, ALABAMA</i>		DATE DRILLED: <i>4-2-93</i>	
DRILL AGENCY: <i>TTL, INC.</i>		BORING COORDINATES: <i>MAP</i>		BORING DEPTH: <i>6.0 Feet</i>	
DRILLER: <i>KEN PATE &amp; CREW</i>		ELEVATION: <i>287 +/- FEET *</i>		WATER LEVEL: <i>NOT ENCOUNTERED</i>	
DRILLING METHOD: <i>7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)</i>				NO. OF SAMPLES: <i>4</i>	

DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)				
					10	20	30	40	
		OL	BROWN CLAYEY SAND W/ORGANICS						
	/ / / / /	SC	TAN CLAYEY SAND	19					
			FIRM, MOIST						
			RED CLAYEY SAND	18					
			STIFF, MOIST	19					
5			FIRM, MOIST	18					
			BORING TERMINATED AT 6.0 FEET						
			* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.						
10									
15									
20									
25									

TTL, Inc

TTL, Inc. PRACTICING IN THE GEOSCIENCES			THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		LOG OF BORING 12-4 Page 1 of 1			
GEO/ENG: JOHN J. HARVEY			LOCATION: TUSCALOOSA, ALABAMA		DATE DRILLED: 4-2-93			
DRILL AGENCY: TTL, INC.			BORING COORDINATES: MAP		BORING DEPTH: 6.0 Feet			
DRILLER: KEN PATE & CREW			ELEVATION: 292 +/- FEET *		WATER LEVEL: NOT ENCOUNTERED			
DRILLING METHOD: 7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)					NO. OF SAMPLES: 4			
DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)			
					10	20	30	40
		OL	BROWN AND RED CLAYEY SAND W/ORGANICS					
			FIRM, MOIST					
		SC	REDDISH TAN CLAYEY SAND W/GRAVEL	15				
			RED AND TAN CLAYEY SAND					
			STIFF, MOIST	15				
			RED CLAYEY SAND W/TRACE GRAVEL					
			STIFF, MOIST	18				
5		SM-SC	DARK BROWN CLAYEY SILTY SAND W/IRONSTONE LAYERS	11				
			VERY DENSE, MOIST					
			BORING TERMINATED AT 6.0 FEET					
			* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.					
10								
15								
20								
25								

TTL, Inc

TTL, Inc. PRACTICING IN THE GEOSCIENCES		THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		LOG OF BORING 12-5 Page 1 of 1	
GEO/ENG: JOHN J. HARVEY		LOCATION: TUSCALOOSA, ALABAMA		DATE DRILLED: 4-2-93	
DRILL AGENCY: TTL, INC.		BORING COORDINATES: MAP		BORING DEPTH: 21.0 Feet	
DRILLER: KEN PATE & CREW		ELEVATION: 296 +/- FEET *		WATER LEVEL: NOT ENCOUNTERED	
DRILLING METHOD: 7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)				NO. OF SAMPLES: 10	

DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)			
					10	20	30	40
5		SC	2" ASPHALT					
			RED CLAYEY SAND W/GRAVEL					
			RED CLAYEY SAND					
			STIFF, MOIST					
			VERY STIFF, MOIST					
10		SC	RED AND TAN CLAYEY SAND	14				
			VERY STIFF, MOIST					
			HARD, MOIST					
15		SM-SC	TAN CLAYEY SILTY SAND	8				
			FIRM, MOIST					
20		SP	RED SILTY SAND W/GRAVEL	6				
			DENSE, MOIST					
25		CL	RED AND WHITE SANDY CLAY	20				
			STIFF, MOIST					
30		SC	RED CLAYEY SAND	15				
			STIFF, MOIST					
			BORING TERMINATED AT 21.0 FEET					
			* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.					




TTL, Inc

TTL, Inc. PRACTICING IN THE GEOSCIENCES			THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		LOG OF BORING 12-6 Page 1 of 1	
GEO/ENG: JOHN J. HARVEY			LOCATION: TUSCALOOSA, ALABAMA		DATE DRILLED: 4-2-93	
DRILL AGENCY: TTL, INC.			BORING COORDINATES: MAP		BORING DEPTH: 11.0 Feet	
DRILLER: KEN PATE & CREW			ELEVATION: 293 +/- FEET *		WATER LEVEL: NOT ENCOUNTERED	
DRILLING METHOD: 7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)					NO. OF SAMPLES: 6	
DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)	
		SC	3" ASPHALT			
			3" RED CLAYEY SAND W/GRAVEL			
			RED CLAYEY SAND W/IRONSTONE LAYERS	14		
			FIRM, MOIST			
			RED AND TAN CLAYEY SAND	11		
			VERY STIFF, MOIST			
5				14		
				13		
		SP	REDDISH TAN SILTY SAND W/GRAVEL			
			VERY DENSE, MOIST	7		
10						
			DENSE, MOIST	6		
			BORING TERMINATED AT 11.0 FEET			
			* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.			
15						
20						
25						

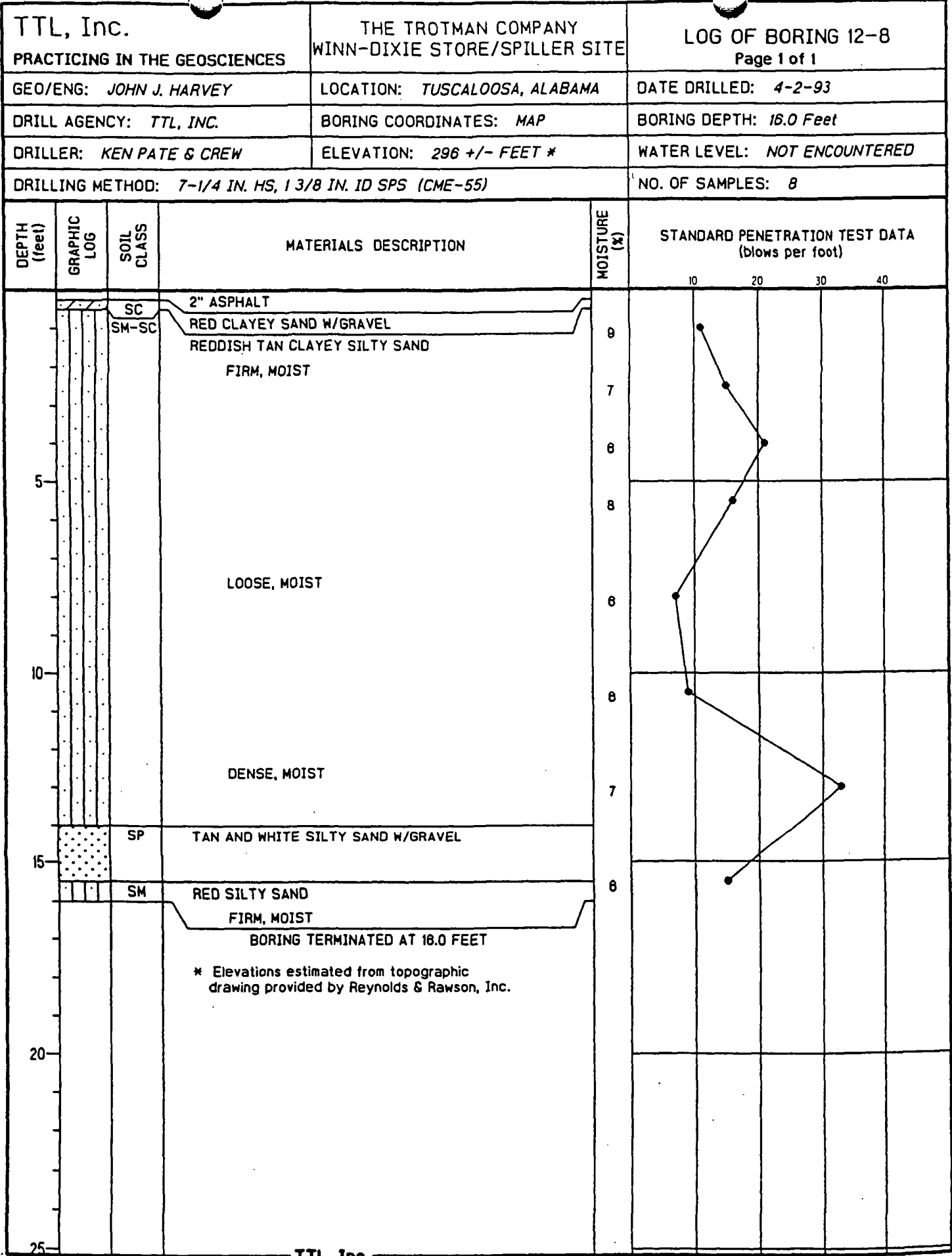
TTL, Inc

TTL, Inc. PRACTICING IN THE GEOSCIENCES		THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		LOG OF BORING 12-7 Page 1 of 1	
GEO/ENG: JOHN J. HARVEY		LOCATION: TUSCALOOSA, ALABAMA		DATE DRILLED: 4-2-93	
DRILL AGENCY: TTL, INC.		BORING COORDINATES: MAP		BORING DEPTH: 11.0 Feet	
DRILLER: KEN PATE & CREW		ELEVATION: 296 +/- FEET *		WATER LEVEL: NOT ENCOUNTERED	
DRILLING METHOD: 7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)				NO. OF SAMPLES: 6	

DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)			
					10	20	30	40
13		SC	2" ASPHALT	13				
			RED CLAYEY SAND W/GRAVEL					
10		SM-SC	RED CLAYEY SAND	10				
			STIFF, MOIST					
4		SM-SC	REDDISH TAN CLAYEY SILTY SAND	4				
			FIRM, MOIST					
8				8				
7				7				
7				7				
BORING TERMINATED AT 11.0 FEET								
* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.								
15								
20								
25								

TTL, Inc



TTL, Inc

TTL, Inc. PRACTICING IN THE GEOSCIENCES		THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		LOG OF BORING 12-9 Page 1 of 1	
GEO/ENG: JOHN J. HARVEY		LOCATION: TUSCALOOSA, ALABAMA		DATE DRILLED: 4-2-93	
DRILL AGENCY: TTL, INC.		BORING COORDINATES: MAP		BORING DEPTH: 21.0 Feet	
DRILLER: KEN PATE & CREW		ELEVATION: 298 +/- FEET *		WATER LEVEL: NOT ENCOUNTERED	
DRILLING METHOD: 7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)				NO. OF SAMPLES: 10	

DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)			
					10	20	30	40
5		SC	3" ASPHALT	12				
			RED CLAYEY SAND W/GRAVEL					
			RED CLAYEY SAND					
			STIFF, MOIST					
10		SM-SC	BROWN AND RED CLAYEY SILTY SAND W/IRONSTONE LAYERS	10				
			DENSE, MOIST					
			VERY DENSE, MOIST					
15		SP	RED SILTY SAND W/GRAVEL	4				
			VERY DENSE, MOIST					
			DENSE, MOIST					
20		SM-SC	RED AND WHITE CLAYEY SILTY SAND W/WHITE CLAY SEAMS	13				
			FIRM, MOIST					
25			BORING TERMINATED AT 21.0 FEET	18				

\* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.

TTL, Inc

TTL, Inc. PRACTICING IN THE GEOSCIENCES		THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		LOG OF BORING 12-10 Page 1 of 1	
GEO/ENG: JOHN J. HARVEY		LOCATION: TUSCALOOSA, ALABAMA		DATE DRILLED: 4-2-93	
DRILL AGENCY: TTL, INC.		BORING COORDINATES: MAP		BORING DEPTH: 11.0 Feet	
DRILLER: KEN PATE & CREW		ELEVATION: 299 +/- FEET *		WATER LEVEL: NOT ENCOUNTERED	
DRILLING METHOD: 7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)				NO. OF SAMPLES: 6	

DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)			
					10	20	30	40
5		SC  SM-SC	1" ASPHALT					
			RED CLAYEY SAND W/GRAVEL					
			RED AND TAN CLAYEY SAND					
			STIFF, MOIST					
			RED CLAYEY SILTY SAND					
7			FIRM, MOIST					
9								
11			LOOSE, MOIST					
13								
15								
17								
19								
21								
23								
25								

BORING TERMINATED AT 11.0 FEET

\* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.

TTL, Inc

TTL, Inc. PRACTICING IN THE GEOSCIENCES			THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		LOG OF BORING 12-11 Page 1 of 1			
GEO/ENG: JOHN J. HARVEY			LOCATION: TUSCALOOSA, ALABAMA		DATE DRILLED: 4-2-93			
DRILL AGENCY: TTL, INC.			BORING COORDINATES: MAP		BORING DEPTH: 16.0 Feet			
DRILLER: KEN PATE & CREW			ELEVATION: 300 +/- FEET *		WATER LEVEL: NOT ENCOUNTERED			
DRILLING METHOD: 7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)					NO. OF SAMPLES: 8			
DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)			
			2.5" ASPHALT		10	20	30	40
		SC	RED CLAYEY SAND W/GRAVEL	8				
		SM-SC	TAN CLAYEY SILTY SAND	5				
			FIRM, MOIST	5				
			LOOSE, MOIST	5				
			FIRM, MOIST	5				
5			REDDISH TAN CLAYEY SILTY SAND	5				
			FIRM, MOIST	5				
			DENSE, MOIST	6				
10			REDDISH TAN CLAYEY SILTY SAND W/IRONSTONE LAYER	5				
			DENSE, MOIST	4				
			LOOSE, MOIST	3				
15			FIRM, MOIST	3				
			BORING TERMINATED AT 16.0 FEET					
			* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.					
20								
25								

TTL, Inc

TTL, Inc. PRACTICING IN THE GEOSCIENCES		THE TROTMAN COMPANY WINN-DIXIE STORE/SPILLER SITE		LOG OF BORING 12-12 Page 1 of 1	
GEO/ENG: JOHN J. HARVEY		LOCATION: TUSCALOOSA, ALABAMA		DATE DRILLED: 4-2-93	
DRILL AGENCY: TTL, INC.		BORING COORDINATES: MAP		BORING DEPTH: 16.0 Feet	
DRILLER: KEN PATE & CREW		ELEVATION: 310 +/- FEET *		WATER LEVEL: NOT ENCOUNTERED	
DRILLING METHOD: 7-1/4 IN. HS, 1 3/8 IN. ID SPS (CME-55)				NO. OF SAMPLES: 8	

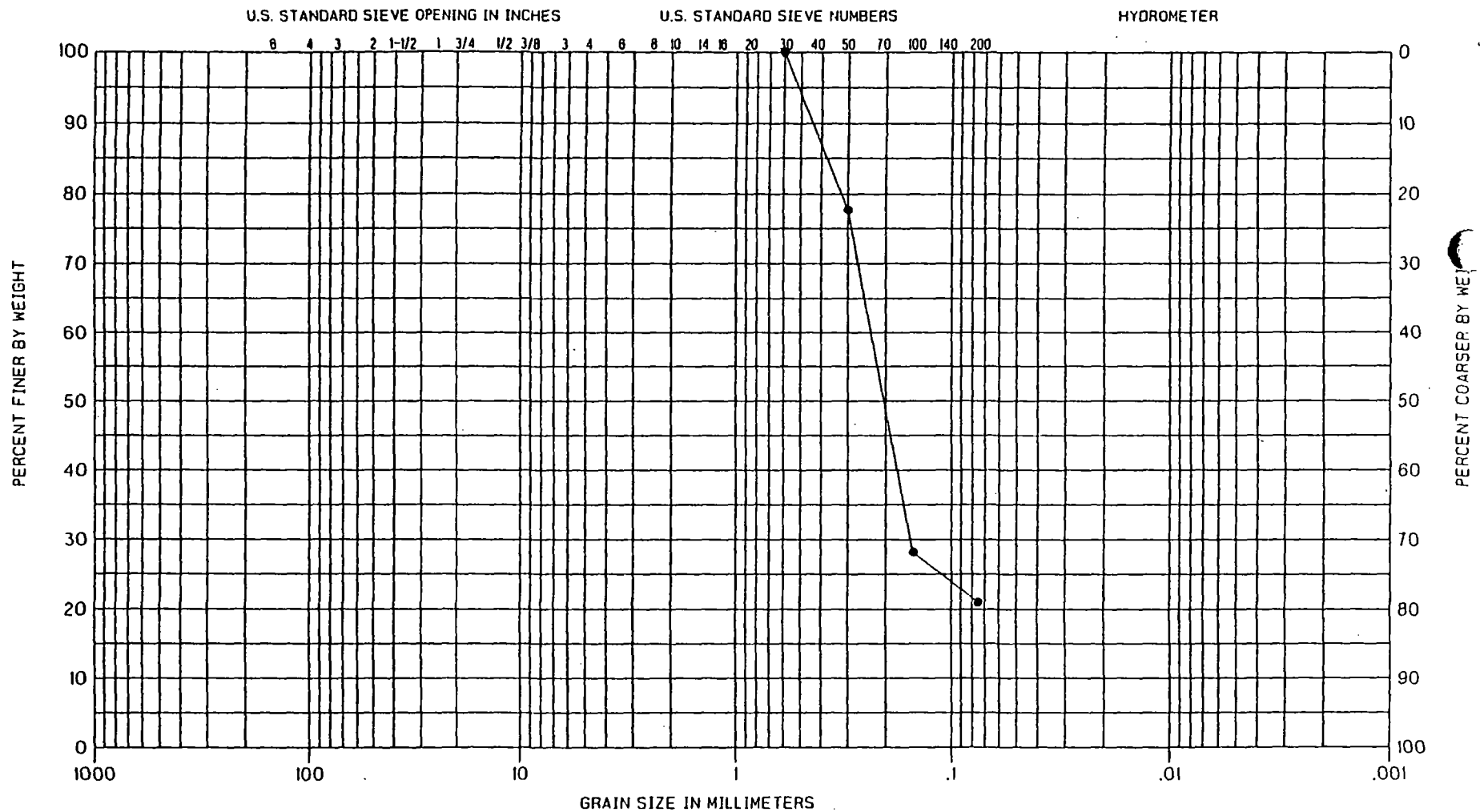
  

DEPTH (feet)	GRAPHIC LOG	SOIL CLASS	MATERIALS DESCRIPTION	MOISTURE (%)	STANDARD PENETRATION TEST DATA (blows per foot)			
					10	20	30	40
5		OL	RED AND TAN SANDY CLAY W/ORGANICS STIFF, MOIST	15				
		CL	RED AND TAN SANDY CLAY STIFF, MOIST	16				
			RED, TAN AND BLACK SANDY CLAY W/TRACE ORGANICS FIRM, MOIST	18				
			RED SANDY CLAY FIRM, MOIST	18				
		CL	STIFF, MOIST	18				
			VERY STIFF, MOIST	15				
			STIFF, MOIST	14				
		SC	RED AND TAN CLAYEY SAND VERY STIFF, VERY MOIST	14				
		SP	RED SILTY SAND W/GRAVEL	14				
		BORING TERMINATED AT 16.0 FEET						
* Elevations estimated from topographic drawing provided by Reynolds & Rawson, Inc.								
20								
25								

TTL, Inc

## **LABORATORY ANALYSES**





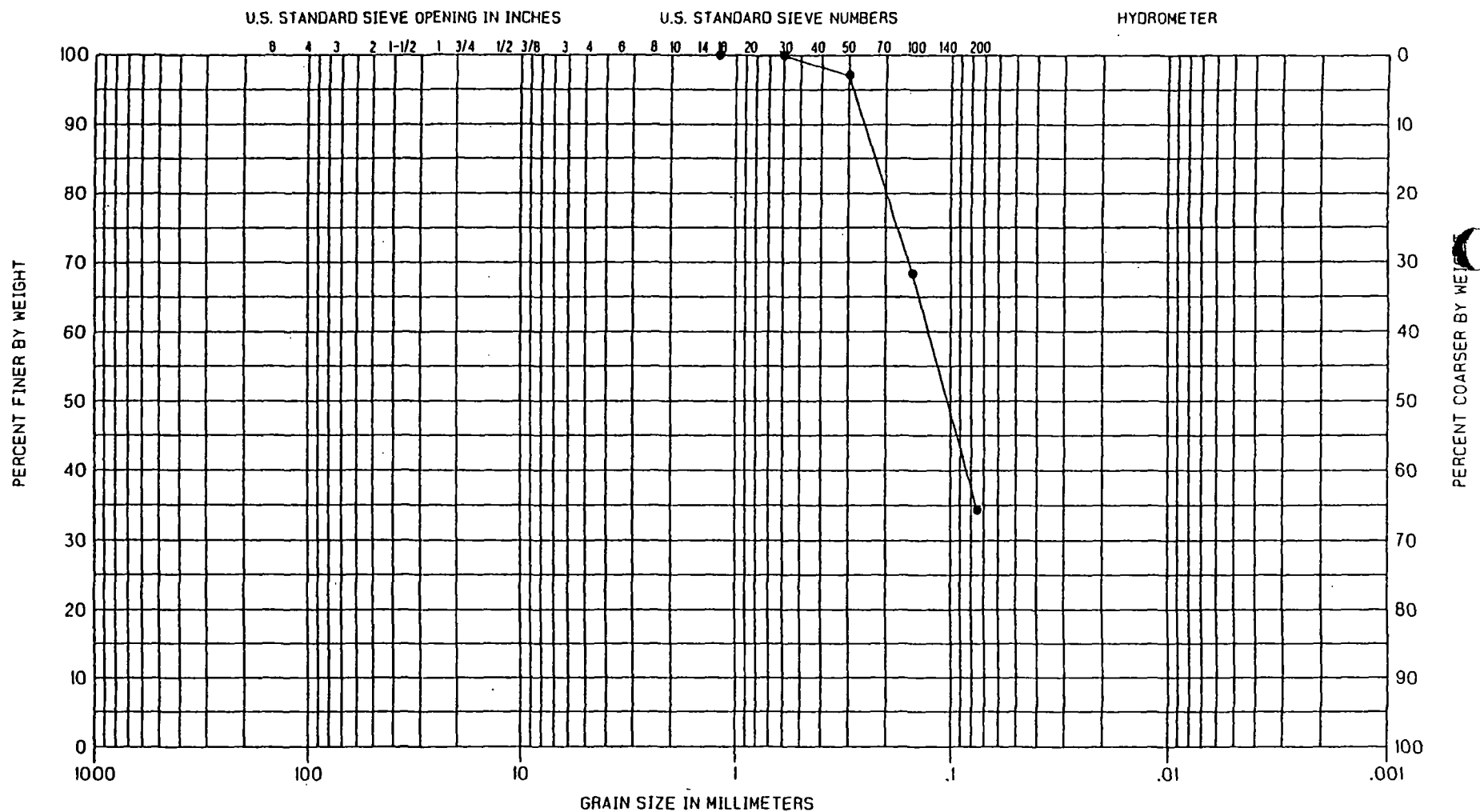
COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
12-7	1.5'-3.0'	Reddish Tan Clayey Silty Sand	10	22	17	5
		(SM-SC)				

Project : The Trotman Company  
Winn-Dixie Store  
Spiller Site  
Area : Tuscaloosa, Alabama  
Boring No. : 12-7  
Date : April, 1993

#### GRADATION CURVES

**TTL, Inc. PRACTICING IN THE GEOSCIENCES**



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
12-10	1.5'-3.0'	Red Clayey Silty Sand	13	25	20	5
		(SM-SC)				

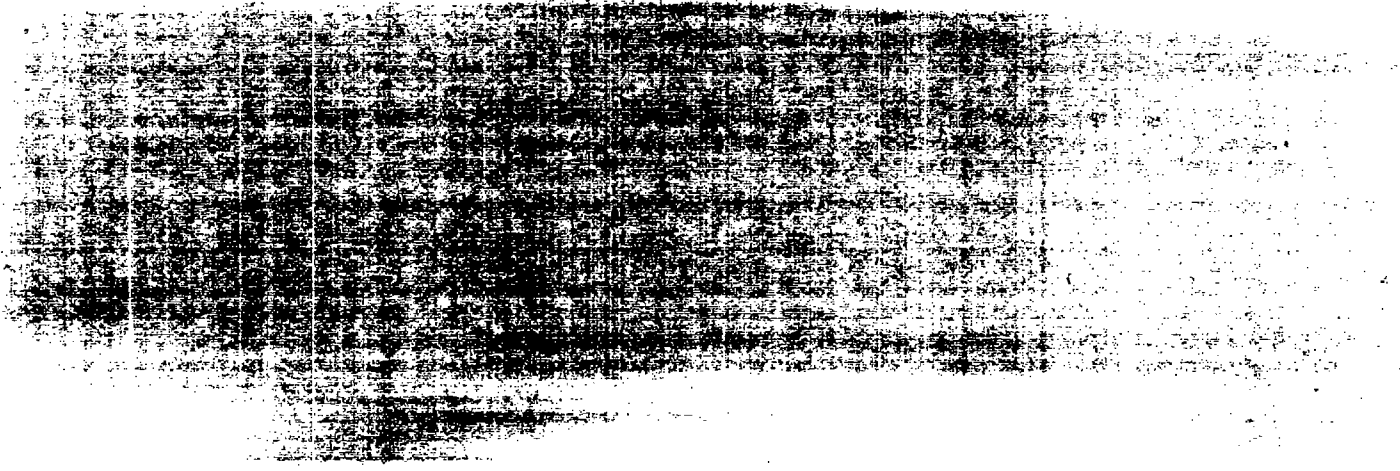
Project : The Trotman Company  
Winn-Dixie Store  
Spiller Site  
Area : Tuscaloosa, Alabama  
Boring No. : 12-10  
Date : April, 1993

# GRADATION CURVES

TTL, Inc. PRACTICING IN THE GEOSCIENCES

3516 Greensboro Avenue, P. O. Drawer 1128, Tuscaloosa, Alabama 35403 Telephone 205-345-0816 FAX 205-345-0892





# TTL, Inc.

## PRACTICING IN THE GEOSCIENCES

3516 Greensboro Avenue • P.O. Drawer 1128 • Tuscaloosa, Alabama 35403 • Telephone 205-345-0816 • FAX 205-345-0992

April 8, 1994

Mr. Charles Trotman  
Trotman Company, Inc.  
2800 Zelda Road  
Suite 200-3  
Montgomery, Alabama 36106

Dear Mr. Trotman:

Shown below is the required analysis information for your specific discharge(s) with the results on the following pages.

### SAMPLING INFORMATION

Sample Date: March 23, 1994  
Sample Type: Storm Water Runoff  
Sample Site: Winn Dixie - Skyland  
Sample ID: Drain Ditch  
Sampled By: TTL Personnel (SBT)  
TTL Lab Number: 940324.33-34  
TTL Job Number: 45-503

### ANALYSIS INFORMATION

Parameters		Date/Time			
Analyzed	Analyst	Analyzed	Method*	Preservatives	Container Type
Total Suspended Solids	TBE	03-25-94/12:00PM	2540D	Refrigeration	Plastic or Glass
Oil & Grease	TBE	04-04-94/8:00AM	5520B	H <sub>2</sub> SO <sub>4</sub> to pH <2 Refrigeration	Glass
Settleable Solids	RDT	04-01-94	2540-F	None	Plastic or Glass

\*The samples were analyzed in accordance with Standard Methods for the Examination of Water and Wastewater, Seventeenth Edition, 1989.

If you or your associates have any questions or comments, please do not hesitate to call.

Sincerely,  
TTL, Inc.



Steve C. Martin, Chemist

SCM/tlc  
Attachments

cc: Stacey Housley

# TTL, Inc.

## PRACTICING IN THE GEOSCIENCES

3516 Greensboro Avenue • P.O. Drawer 1128 • Tuscaloosa, Alabama 35403 • Telephone 205-345-0816 • FAX 205-345-0992

Charles Trotman  
Trotman Company, Inc.

Sample Date: March 23, 1994  
Sample Type: Storm Water Runoff  
Sample Site: Winn Dixie - Skyland  
Sample ID: Drain Ditch  
Sampled By: TTL Personnel (SBT)  
TTL Lab Number: 940324.33-34  
TTL Job Number: 45-503

Total Suspended Solids, mg/l	595
Oil & Grease, mg/l	<1.0
Settleable Solids, mg/l	2.5

The samples were analyzed in accordance with Standard Methods for the Examination of Water and Wastewater, Seventeenth Edition, 1989.

# TTL, Inc.

## PRACTICING IN THE GEOSCIENCES

3516 Greensboro Avenue • P.O. Drawer 1128 • Tuscaloosa, Alabama 35403 • Telephone 205-345-0816 • FAX 205-345-0992  
FIELD DENSITY REPORT

CLIENT The Trotman Company

PROJECT Spiller Market Centre

LOCATION Tuscaloosa, Alabama

DATE June 8, 1994

### PROCTOR DENSITY INFORMATION

P.D.#	MATERIAL	TYPE	MAXIMUM DENSITY	OPTIMUM MOISTURE
1	Red Sandy Clay w/Trace Gravel	ASTM D-698 "A"	123.2	11.8
2	Reddish Tan Clayey Sand	ASTM D-698 "A"	101.6	18.7
3	Red Clayey Sand w/Trace Gravel	ASTM D-698 "A"	119.9	11.8

TEST#	PD#	LOCATION	ELEV./THICKNESS	DRY DENSITY	%MOISTURE	%COMPACTION
-------	-----	----------	-----------------	-------------	-----------	-------------

6/08/94

5	3	Rental Shop, Upper Level, Northeast Corner	Finish Sub Grade	113.70	10.2	94.8
6	3	Rental Shop, Middle Level, Center	Finish Sub Grade	115.20	11.2	96.1
7	3	Rental Shop, Lower Level, Southwest Corner	Finish Sub Grade	113.40	8.2	94.6

NOTE: A Compaction of 100% Proctor Density was required.

Field density test results represent only the eight inch layer of soil beneath indicated elevation tested. Field density represents percent compaction on date tested. Exposure to weather, construction traffic, etc. may change percent compaction over a short period of time.

cc: City of Tuscaloosa, Inspection Department  
S.T. Bunn Construction

TTL, INC.

H. Dean McClure  
H. Dean McClure



# TTL, Inc.

## PRACTICING IN THE GEOSCIENCES

3516 Greensboro Avenue • P.O. Drawer 1128 • Tuscaloosa, Alabama 35403 • Telephone 205-345-0816 • FAX 205-345-0992  
FIELD DENSITY REPORT

CLIENT The Trotman Company

PROJECT Spiller Market Centre

LOCATION Tuscaloosa, Alabama

DATE July 11, 1994

### PROCTOR DENSITY INFORMATION

P.D.#	MATERIAL	TYPE	MAXIMUM DENSITY	OPTIMUM MOISTURE
1	Red Sandy Clay w/Trace Gravel	ASTM D-698 "A"	123.2	11.8
2	Reddish Tan Clayey Sand	ASTM D-698 "A"	101.6	18.7
3	Red Clayey Sand w/Trace Gravel	ASTM D-698 "A"	119.9	11.8

TEST#	PD#	LOCATION	ELEV./THICKNESS	DRY DENSITY	% MOISTURE	% COMPACTION
-------	-----	----------	-----------------	-------------	------------	--------------

7/11/94

11	3	East End of Parking Lot, Center	FSG	107.75	12.8	89.9
12	3	South Side of Parking Lot, Center	FSG	121.50	11.9	101.3
13	3	West End of Parking Lot, South End	FSG	120.25	11.9	100.3
14	3	North Side of Parking Lot, West End	FSG	122.25	13.3	102.0
15	3	North Side of Parking Lot, East End	FSG	123.50	12.6	103.0

NOTE: A Compaction of 95% Proctor Density was required.

Field density test results represent only the eight inch layer of soil beneath indicated elevation tested. Field density represents percent compaction on date tested. Exposure to weather, construction traffic, etc. may change percent compaction over a short period of time.

cc: City of Tuscaloosa, Inspection Department  
S.T. Bunn Construction

TTL, INC.

H. Dean McClure  
H. Dean McClure

# TTL, Inc.

## PRACTICING IN THE GEOSCIENCES

3516 Greensboro Avenue • P.O. Drawer 1128 • Tuscaloosa, Alabama 35403 • Telephone 205-345-0816 • FAX 205-345-0992  
FIELD DENSITY REPORT

CLIENT The Trotman Company

PROJECT Spiller Market Centre

LOCATION Tuscaloosa, Alabama

DATE August 1, 1994

### PROCTOR DENSITY INFORMATION

P.D.#	MATERIAL	TYPE	MAXIMUM DENSITY	OPTIMUM MOISTURE
1	Red Sandy Clay w/Trace Gravel	ASTM D-698 "A"	123.2	11.8
2	Reddish Tan Clayey Sand	ASTM D-698 "A"	101.6	18.7
3	Red Clayey Sand w/Trace Gravel	ASTM D-698 "A"	119.9	11.8
4	Red Clayey Sand w/Gravel	ASTM D-698 "C"	126.8	9.5

TEST#	PD#	LOCATION	ELEV./THICKNESS	DRY DENSITY	% MOISTURE	% COMPACTION
-------	-----	----------	-----------------	-------------	------------	--------------

8/1/94

16	4	Drive on East End of Building, South Side	Base	121.70	10.1	95.9
17	4	Drive on East End of Building, North Side	Base	127.20	6.4	100.3
16A	4	Drive on East End of Building, South Side	Base	126.80	8.2	100.0

NOTE: A Compaction of 100% Proctor Density was required.

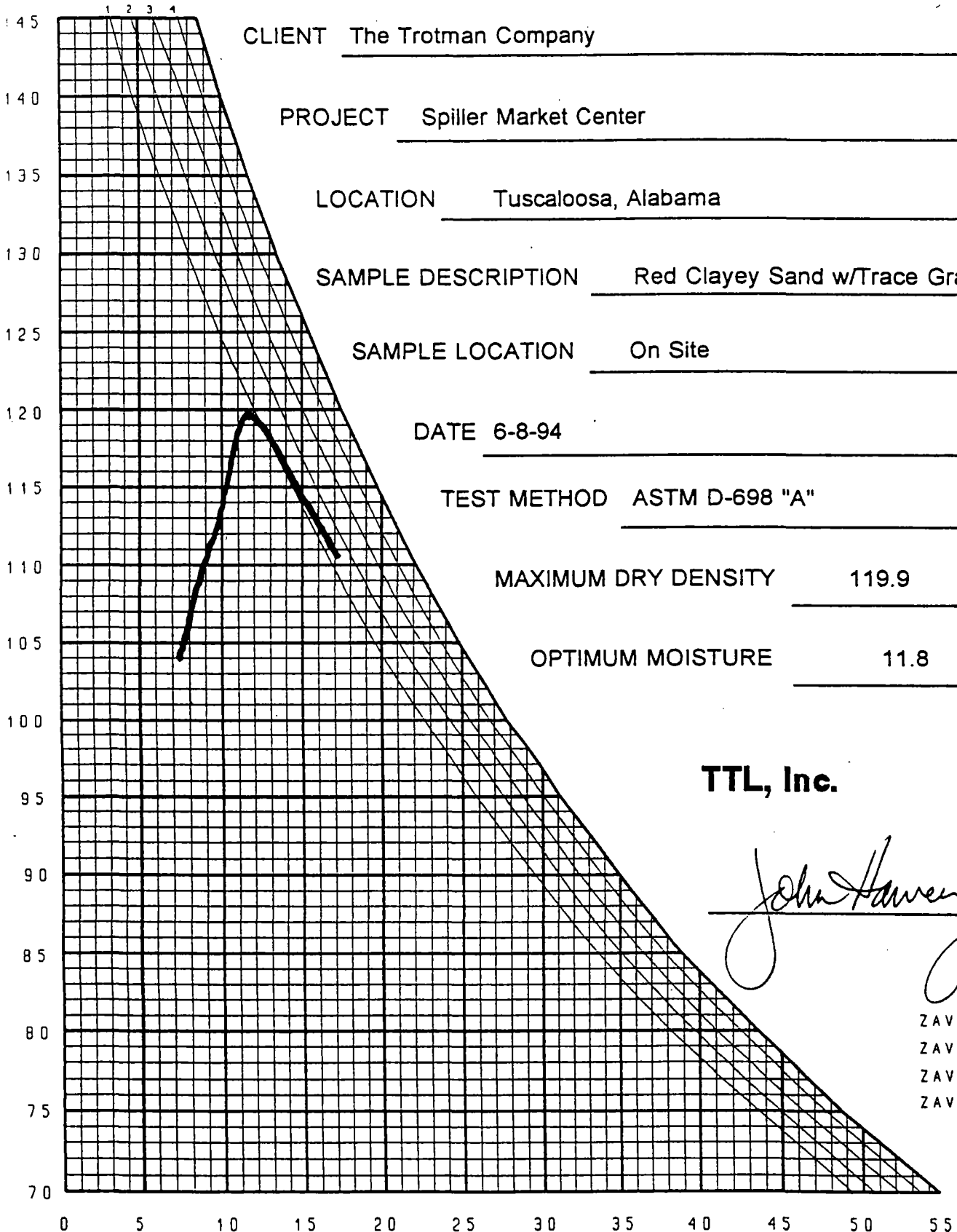
Field density test results represent only the eight inch layer of soil beneath indicated elevation tested. Field density represents percent compaction on date tested. Exposure to weather, construction traffic, etc. may change percent compaction over a short period of time.

cc: City of Tuscaloosa, Inspection Department  
S.T. Bunn Construction

TTL, INC.

H. Dean McClure  
H. Dean McClure

## MOISTURE - DENSITY RELATIONSHIP - SOIL



# TTL, INC.

## Chain of Custody Form

Sheet 1 of 1

### Sample Security Requirements

Client: Trotman Company Win Dixie Skylene

Contact: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Phone No.: \_\_\_\_\_

Date: 3-23-94

Sampled By: BT

Sample Site: drain ditch

TTL Job No.: \_\_\_\_\_

1. Condition of Contents: \_\_\_\_\_
2. Sealed for Shipping By: \_\_\_\_\_
3. Initial Contents Temp.: \_\_\_\_\_ °C Seal # \_\_\_\_\_
4. Sampling Status: Complete Expected Completion Date \_\_\_\_\_
5. Custody Seal Intact Upon Receipt by Laboratory: Yes No
6. Condition of Contents: \_\_\_\_\_
7. Comments: \_\_\_\_\_

Date	Time	Sample ID/Description	Sample Type	Sample Method		# of Containers	Preservatives	Analysis Parameters (Remarks)
			Solid, Etc.	Grab	Comp			
3-23-94	2:30		H <sub>2</sub> O	✓		1	None	pH 7.40 temp 15°
"	"		H <sub>2</sub> O	✓		1	H <sub>2</sub> SO <sub>4</sub>	Cond -30
								2 inches deep
								10 inches wide
								6 feet long
								1.5 ft per second
								TSS 55
								0.45

### CUSTODY TRANSFERS PRIOR TO SHIPPING

### SHIPPING DETAILS

Relinquished by: (signed) BRAD TUCKER

Received by: (signed) \_\_\_\_\_

Date 3-23-94 Time 2:40

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Delivered to Shipper by: \_\_\_\_\_

Method of Shipment: \_\_\_\_\_ Airbill # \_\_\_\_\_

Received By Lab: Dana Oliver

Date/Time 3-23-94 2:45 pm

# WASTEWATER FIELD DATA SHEETS

CLIENT Trotman Company Winn Dixie Skyland

Sample Site/Point drain ditch

Sample Date/Time 3-23-94 2:30 Sampled by BT

NPDES Discharge Yes ☐ No ☐

DSN Number                      Flow                     

On Site Analyses

pH 7.40 D.O.            C12            Other temp 15° Cond 30

2 inches deep 10 inches wide 6 ft long 1.5 ft per second

Sample Site/Point                     

Sample Date/Time                      Sampled by                     

NPDES Discharge Yes ☐ No ☐

On Site Analyses

pH            D.O.            C12            Other           

Sample Site/Point                     

Sample Date/Time                      Sampled by                     

NPDES Discharge Yes ☐ No ☐

On Site Analyses

pH            D.O.            C12            Other           

Sample Site/Point                     

Sample Date/Time                      Sampled by                     

NPDES Discharge Yes ☐ No ☐

On Site Analyses

pH            D.O.            C12            Other           

Sample Site/Point                     

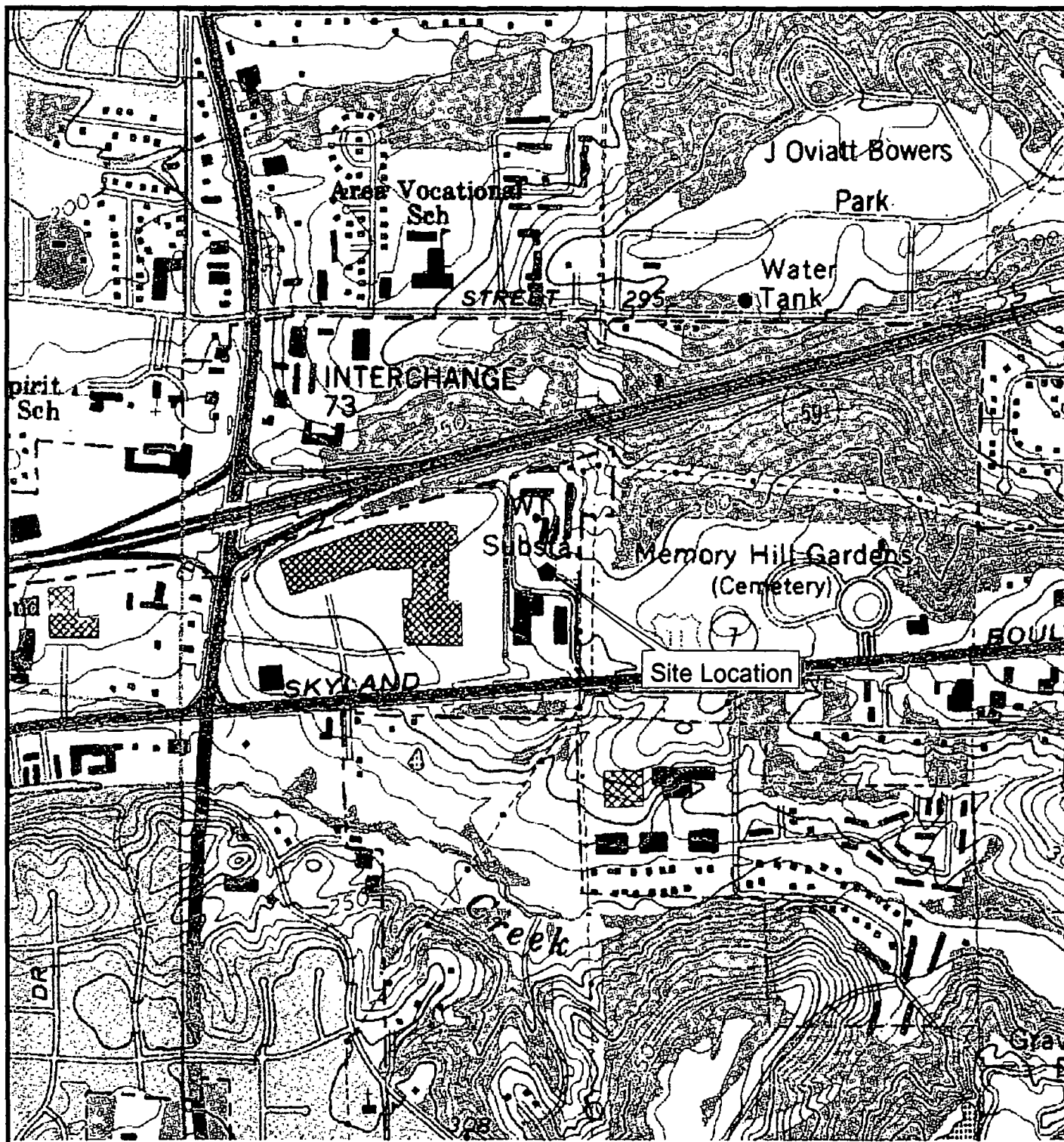
Sample Date/Time                      Sampled by                     

NPDES Discharge Yes ☐ No ☐

On Site Analyses

pH            D.O.            C12            Other

**FIGURE 1**



# Andrew Knit Site Tuscaloosa County Tuscaloosa, Alabama

- ◆ Site Location
- Public Wells
- Surface Water Intakes

400 0 400 800 Feet

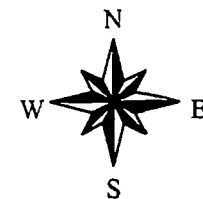
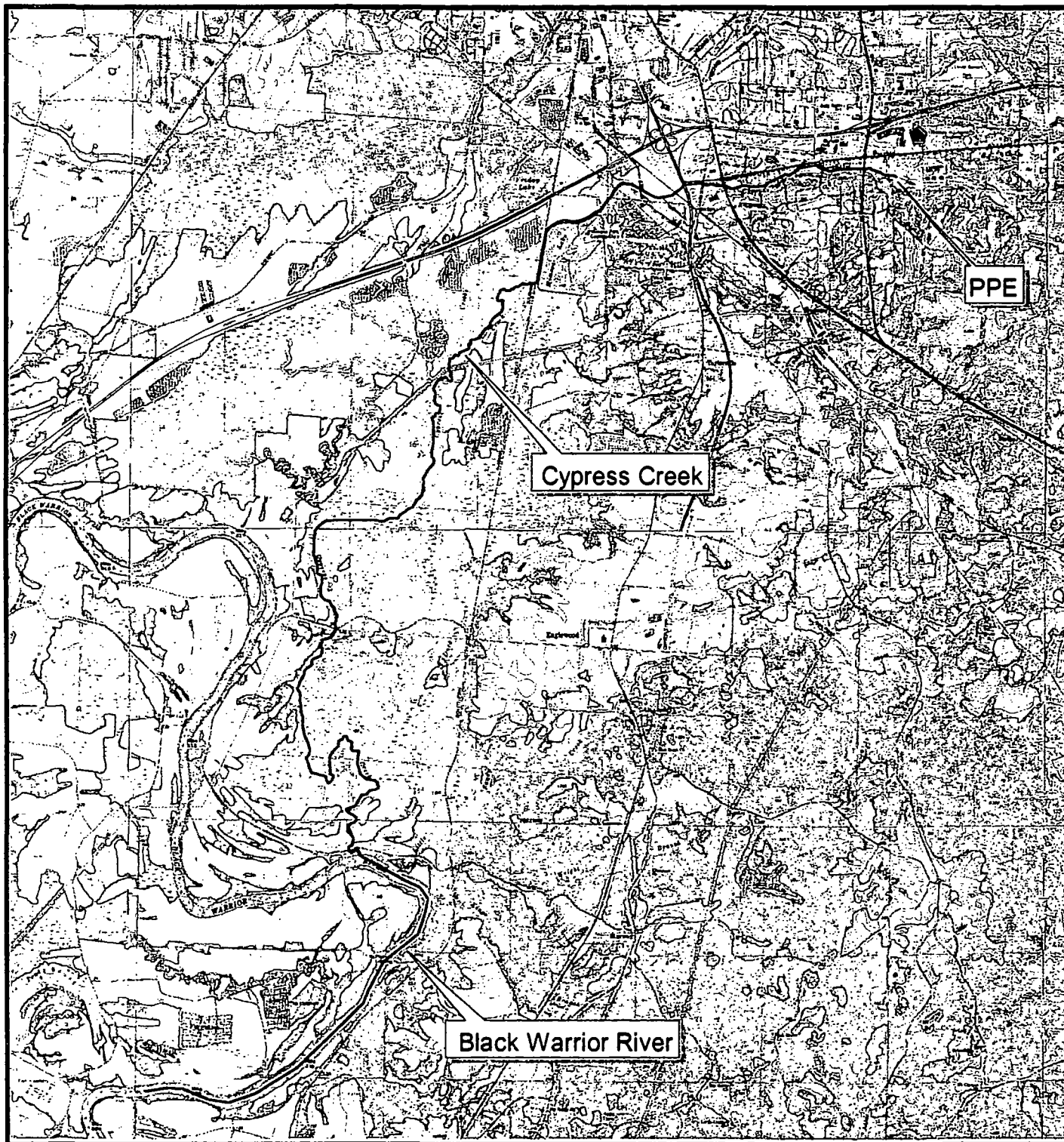





Figure 1

**FIGURE 2**



Surface Water Pathway  
Andrew Knit Site  
Tuscaloosa County  
Tuscaloosa, Alabama

-  Site Location
-  Surface Water Intakes
-  Surface Water Pathway

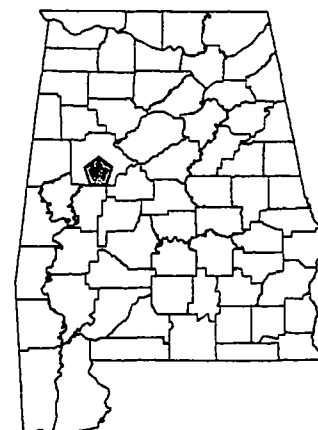
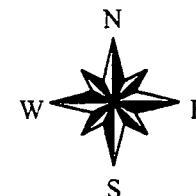
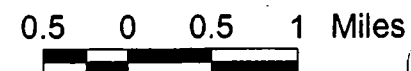













Figure 2

**FIGURE 3**

# Geologic Map Andrew Knit Site Tuscaloosa County Tuscaloosa, Alabama

-  Site Location
-  Public Wells
-  Surface Water Bodies
-  Streams
-  Roads
-  Railroads
-  Township-Range Lines
- Geologic Formation**
-  Alluvial and low terrace deposits
-  Coker Formation
-  High terrace deposits
-  Pottsville Formation (upper part)

0.7 0 0.7 1.4 Miles


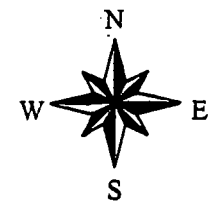



Figure 3

**FIGURE 4**

# Aquifer Recharge Areas Andrew Knit Site Tuscaloosa County Tuscaloosa, Alabama

- ◆ Site Location
- Public Wells
- ▭ Surface Water Bodies
- ▭ Streams
- ▭ Roads
- ▭ Railroads
- ▭ Township-Range Lines
- Aquifer Recharge Area
- ▭ Coker aquifer
- ▭ Pottsville aquifer
- ▭ Watercourse aquifer

0.7 0 0.7 1.4 Miles

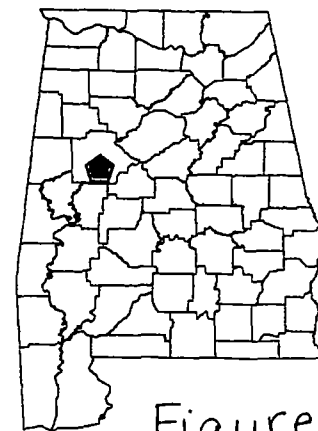
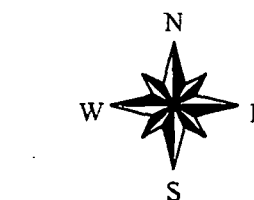
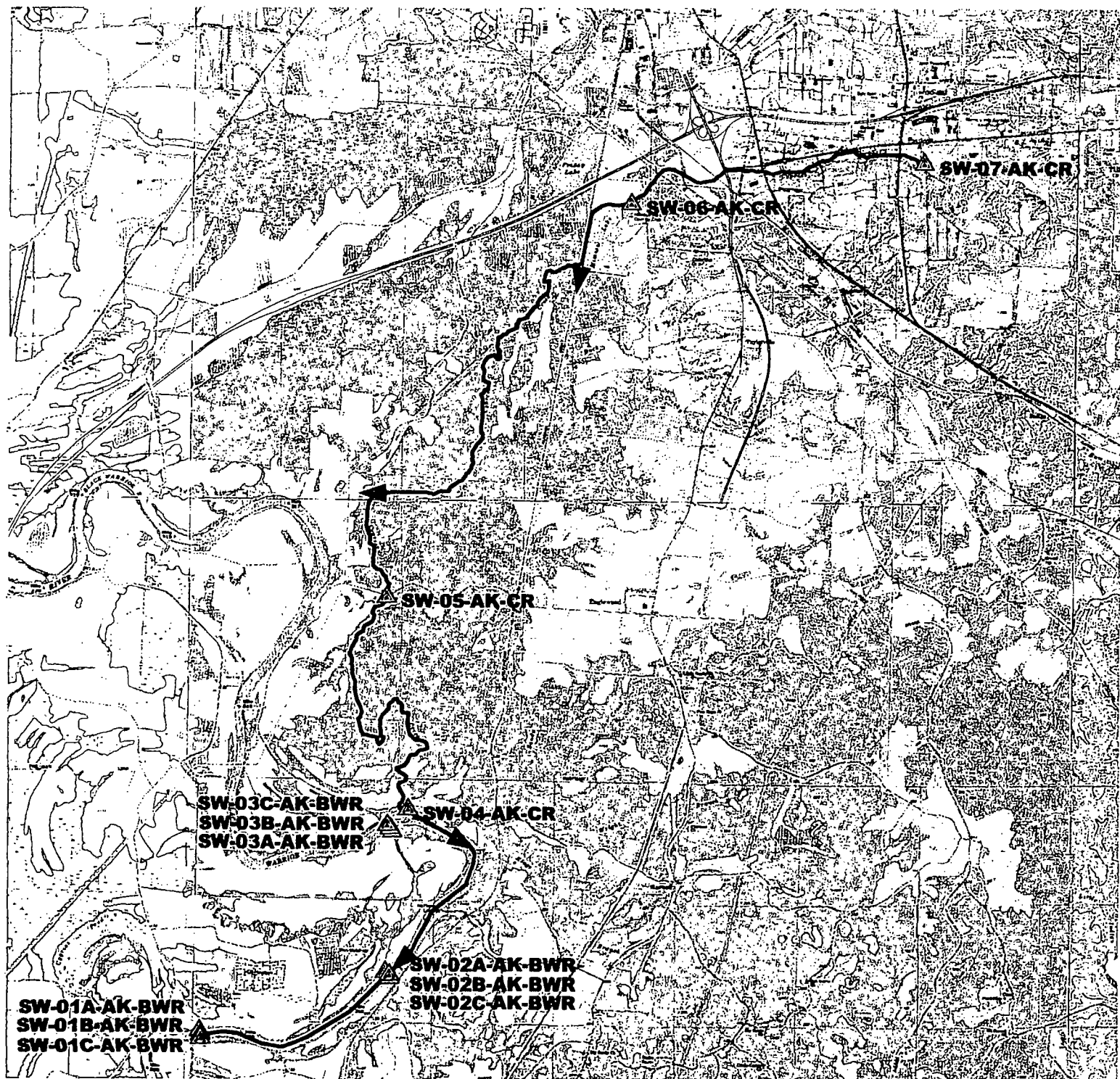




Figure 4

**FIGURE 5**



 Surface Water Sample Location  
 15-Mile Surface Water Pathway

**CERCLA: Integrated Assessment**  
**Andrew Knit**  
**Tuscaloosa, Tuscaloosa County Alabama**  
**Surface Water Sample Location Map**

7000      0      7000      14000 Feet


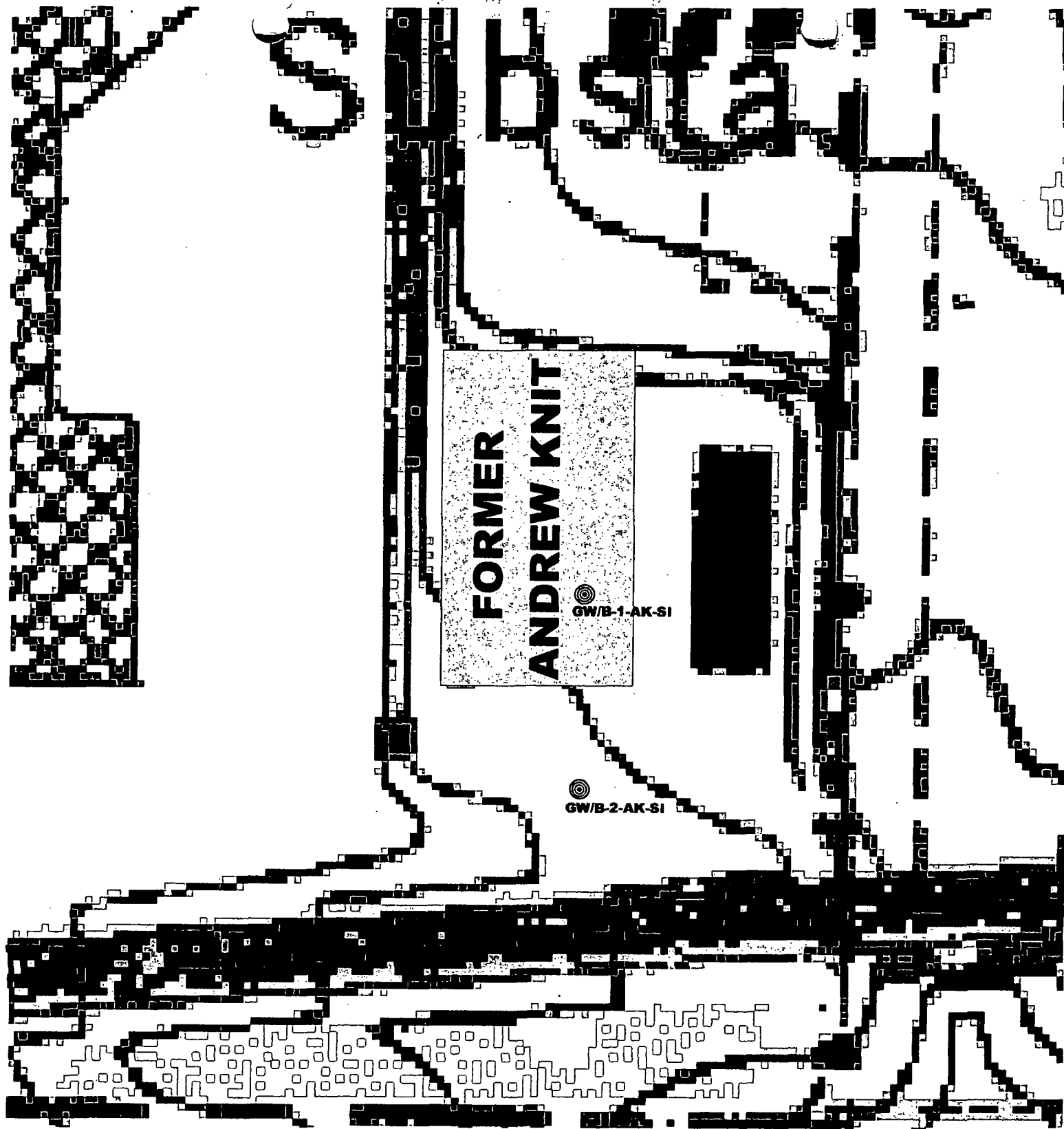



Figure 5

**FIGURE 6**

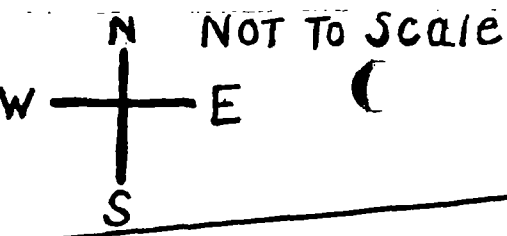


**CERCLA: Integrated Assessment**  
**Andrew Knit**  
**Tuscaloosa, Tuscaloosa County Alabama**  
**Groundwater Sampling Location Map**  
100 0 100 200 Feet



Figure 6

**FIGURE 7**



Interstate 20/59

82 East/McFarland Blvd.

JandJ Telephone Inc.

Parking Lot

Cinema

Harper Chambers

Super 8 Motel

Sticks - N- Stuff

Michael's

TJ Max

McFarland Mall

Parking Lot

Parking Lot

Dillard's

Winn Dixie Marketplace

Security Storage

Parking Lot

Former AK Location

Substation

Strip Mall

Memory Gardens

Andrews Street

Parking Lot

Old Gaylord's Dept. Store (AK Pilot Plant) Presently: Vacant Lot

Gas Station

Northington Cleaners

Books-A-Million

Chili's

Skyland Blvd. West

Bank

KFC

Wendy's

Logan's Roadhouse

Sam's Wholesale Walmart Supercenter

Skyland Blvd. East

Old Service Merchandise

Figure 7